

**POWNAL TANNERY SUPERFUND SITE
RECORD OF DECISION
SEPTEMBER 2002**

**APPENDIX A
STATE OF VERMONT LETTER OF CONCURRENCE**



State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
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August 23, 2002

Mr. Richard Cavagnero, Acting Director
Office of Site Remediation and Restoration (OSRR)
EPA New England
1 Congress Street, Suite 1100
Boston, Ma 02114-2023

RE: VT Comments on the Proposed Cleanup Plan for the Pownal Tannery Lagoons- Site #77-0066

Dear Mr. Cavagnero:

The State of Vermont Department of Environmental Conservation (VTDEC) has completed its review of the proposed cleanup plan for the Pownal Tannery Lagoons. The plan calls for the excavation and consolidation of tannery wastewater sludge, and containment of the sludge underneath an engineered landfill cap. The implementation of this remedy is planned for the 2003 construction season, and will be coordinated with the proposed construction of a wastewater treatment plant for the town of Pownal that is planned to be located in the lagoon area.

The VTDEC concurs with the proposed consolidation and capping remedy. The department has the following comments on the proposed plan and its implementation:

VTDEC concurrence with this remedy is predicated on the assumption that both the lagoon cleanup and the wastewater treatment plant projects can be initiated in 2003. The state believes that the high cost of the proposed remedy can only be justified by the health risk reduction that will be realized by the completion of both the lagoon cleanup and the wastewater treatment plan project in a timely manner.

The VTDEC understands that the state will be responsible for 10% of the capital construction costs of the proposed remedy, plus all operation and maintenance costs. The total capital cost of the remedy is currently \$7.8 million. Based on this estimate, the state's share of capital costs is currently projected to be \$780,000. The operation and maintenance costs are projected to be approximately \$1 million over 30 years. In addition, the VTDEC currently is performing operation and maintenance activities at the former mill building and landfill areas. The VTDEC currently has approximately

\$621,000 available in dedicated funds to fulfill these obligations. The VTDEC will be seeking legislative approval for the balance of the funds needed, but legislative approval cannot be assured in this or subsequent years. The VTDEC intends to fulfill its obligations under CERCLA to the best of its abilities, given the funding constraints that may exist over the life of the project.

This project will be the first Superfund-financed remedial action in the state. Since the state will bear a percentage of the project costs, the state expects to be an active partner in providing design guidance and construction oversight for this project. We are confident that EPA will be able to accommodate our need to share in design and construction decisions.

Recent amendments to the Solid Waste Management Rules (§301(d)) and Statutes (10 VSA §6605(d) & §6614) allow the Secretary to waive certain statutory and rule requirements for solid waste facilities constructed as a part of a state or federal environmental response action. The Secretary of the Agency of Natural Resources must make a written finding prior to issuing a waiver that such a project will not adversely affect public health, safety or and the environment and that the technical and siting requirements will be complied with to the extent practical in light of the overall objectives of the response. Such a finding will need to be made for this project based on VTDEC review of the final design for the facility. VTDEC concurrence with the proposed plan should not be construed as a substitute for this finding or as an obligation to make such a finding at the conclusion of the design phase.

The Human Health Risk Assessment for the site identified Hoosic River sediments as a human health risk due primarily to the presence of polychlorinated byphenals (PCBs). It is believed that these substances are not related to the Pownal Tannery site, and the proposed remedy will not address this risk. However, the Town of Pownal has plans to redevelop a portion of the property for recreational use. This proposed redevelopment could attract residents, and particularly children, to the vicinity of the river where they could become exposed to river sediments. The VTDEC is not prepared to approve or endorse recreational redevelopment of this site at this time. The existing data needs to be reviewed further, and additional data may need to be collected before the department can determine what, if any, recreational development is appropriate for this location. Institutional controls will need to be developed to help prevent unacceptable uses of the site, if any are determined

The VTDEC River Corridor Management Section has developed a number of recommendations for the project, based on their review of the floodplain modeling study performed for EPA by TRC Environmental and on a field visit in June 2002. Their recommendations are reproduced below, and the VTDEC asks that they be addressed during the design phase of the project:

1. The Option 2 footprint presented in the floodplain modeling study should be the recommended alternative due to its limited encroachment within the floodway.
2. A Letter of Map Revision should be requested from FEMA.
3. Any partial removal of the levee should be carefully considered and modeled with respect to possible erosion of the restored flood plain, the remaining portions of the levee, and the return flow path to the river.

Richard Cavagnero
August 23, 2002
Page 3 of 3

4. In the event of partial levee removal, and in anticipation of flood plain routing resulting in significant velocity, the streamward toe of the waste landfill must be armored to an appropriate elevation.
5. Any engineering or hydraulic calculations or projections associated with project design should be conservatively adjusted to account for potential mass wasting failures occurring during design storm discharge events.
6. Any anticipated or proposed partial removal of the levee must be accompanied by a comprehensive riparian buffer revegetation and maintenance plan.
7. Full site reclamation design, and future development plans for portions of the site by others, should be accompanied and supported by a riparian buffer establishment and permanent protection plan. Such buffer should not be less than 100 feet in width and, wherever possible, wider.

The VTDEC looks forward to the successful implementation of this project.

Sincerely,



Christopher Recchia
Commissioner

cc: Leslie McVickar, USEPA
Brian Woods, VTDEC

**POWNAL TANNERY SUPERFUND SITE
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SEPTEMBER 2002**

**APPENDIX B
TABLES AND FIGURES**

Table B-1 Alternatives Evaluation Summary

<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>
Description					
<p>No Remediation.</p> <p>Site Review every five years.</p>	<p>No active re mediation. Long-term monitoring of ground water and sediment. Site inspected annually and site review every five years.</p> <p>Installation of perimeter fencing and implementation of institutional controls to prevent ground water consumption from the Lagoon Area and to protect the Landfill cap.</p>	<p>Regrading of Lagoons 1, 3 and 5 and construction of a solid waste cover system to prevent exposure to waste and minimize the potential for a release of contamination during any flooding event, up to a 100 year-flood.</p> <p>Long-term monitoring of ground water and sediment. Site inspected annually and Site Review every five years.</p> <p>Creation of institutional controls to prevent ground water consumption from the Lagoon Area and to protect the Landfill cap.</p>	<p>Excavation and dewatering of waste from Lagoons 1 and 5 and placement on Lagoon 3 and a portion of lagoon 4.</p> <p>Construction of a solid waste cover system to prevent exposure to waste and minimize the potential for a release of contamination during any flooding event, up to a 100 year-flood.</p> <p>Lowering of berms along river by five feet to increase flood storage capacity of river.</p> <p>Restoration of Lagoons 1 and 5 to current grade and physical or vegetative stabilization.</p> <p>Long-term monitoring of ground water and sediment. Site inspected annually and Site Review every five years.</p> <p>Creation of institutional controls to prevent ground water consumption from the Lagoon Area and to protect the Landfill cap.</p>	<p>Excavation, dewatering, and off-site disposal of waste in Lagoons 1, 3 and 5. Disposal would be at a solid waste facility that would accept dioxin contaminated waste.</p> <p>Long-term monitoring of ground water and sediment. Site inspected annually and Site Review every five years.</p> <p>Lowering of berms along river by five feet to increase flood storage capacity of river.</p> <p>Restoration of Lagoons 1, 3 and 5 to current grade and physical or vegetative stabilization.</p> <p>Creation of institutional controls to prevent ground water consumption from the Lagoon Area and to protect the Landfill cap.</p>	<p>Ex-situ solidification/stabilization of waste in Lagoon 1, 3, and 5 using Portland Type II cement and fly ash.</p> <p>Placement of waste in consolidated footprint, covered with soil cap and minimize the potential for a release of contamination during any flooding event, up to a 100 year-flood.</p> <p>Lowering of berms along river by five feet to increase flood storage capacity of river.</p> <p>Restoration of Lagoons 1 and 5 to current grade and physical or vegetative stabilization.</p> <p>Long-term monitoring of ground water and sediment. Site inspected annually and Site Review every five years.</p> <p>Creation of institutional controls to prevent ground water consumption from the Lagoon Area and to protect the Landfill cap.</p>

Table B-1 Alternatives Evaluation Summary

<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>
Description					
Overall Protection of Human Health and the Environment					
<p>No reduction in risk. Contaminants would continue to pose a risk from dermal contact and ingestion of soils. Source area could leach into ground water undetected.</p>	<p>Reduction in human health but not ecological risk provided by preventing contact with contaminated Site media.</p> <p>Source area could leach into ground water but would be detected by Long-term monitoring. Contamination could also wash downstream and not be readily detected.</p>	<p>Provides needed overall protection of human health and the environment.</p> <p>Installation of cap would prevent exposure to contaminated soils and wastes at the site.</p> <p>Long-term monitoring would determine whether contaminants in ground water or sediment were increasing or decreasing in concentration.</p>	<p>Provides needed overall protection of human health and the environment.</p> <p>Installation of cap would prevent exposure to contaminated soils and wastes at the site.</p> <p>Long-term monitoring would determine whether contaminants in ground water or sediment were increasing or decreasing in concentration.</p>	<p>Provides needed overall protection of human health and the environment.</p> <p>Contaminated soils and waste would be removed from the site and disposed off-site at a permitted solid waste facility.</p> <p>Long-term monitoring would determine whether contaminants in ground water or sediment were increasing or decreasing in concentration.</p>	<p>Provides needed overall protection of human health and the environment.</p> <p>Installation of cap would prevent exposure to contaminated soils and wastes at the site.</p> <p>Solidification/Stabilization of soil and waste would reduce the potential for erosion of waste during floods and would minimize any ground water impacts.</p> <p>Long-term monitoring would determine whether contaminants in ground water or sediment were increasing or decreasing in concentration.</p> <p>Contaminants would be treated in this alternative to reduce the contaminant mobility.</p>

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<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>
Description					
Compliance with ARARs and TBCs					
Chemical-Specific					
This alternative would not comply with all chemical-specific ARARs for ground water, or TBCs for surface water and sediment. Although contaminant concentrations in these media are likely to decrease over time, there is no monitoring component to determine compliance.	This alternative would not comply with all chemical-specific ARARs for ground water, or TBCs for surface water and sediment, but the monitoring component would provide a mechanism to determine whether compliance was attained in the future due to contaminant attenuation.	This alternative will comply with all chemical-specific ARARs by capping the Site contamination and monitoring.	This alternative will comply with all chemical-specific ARARs by capping the Site contamination and monitoring.	This alternative will comply with all chemical-specific ARARs by excavating and off-site disposal of the Site contamination and monitoring.	This alternative will comply with all chemical-specific ARARs by consolidating, solidify, and capping the Site contamination and monitoring.
Location-Specific					
There are no Location-specific ARARs for this Alternative.	This alternative would not meet ARARs related to floodplain and wetlands.	This alternative will not meet federal floodplain standards, since leaving the waste in place without consolidation is not the best practicable alternative to addressing the contaminated material in the floodplain.	This alternative will meet all location-specific ARARs, particularly federal floodplain standards, since consolidating and capping the waste in the upper edge of the 100-year floodplain, outside of the floodway, is the best practicable alternative to addressing the contaminated material in the floodplain.	This alternative will meet all location-specific ARARs. However, under federal floodplain standards excavation and off-site disposal of the waste was determined not to be the best practicable alternative to addressing the contaminated material in the floodplain because of the difficulty and high expense of locating and utilizing an off-site disposal facility that would accept dioxin-contaminated waste.	This alternative will meet all location-specific ARARs. However, under federal floodplain standards consolidation, solidification, and capping of the waste was determined not to be the best practicable alternative to addressing the contaminated material in the floodplain because of the technical challenges and high expense of solidifying the contaminated material before onsite capping within the floodplain.

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Action-Specific					
There are no Action-specific ARARs for this Alternative.	This alternative would not comply with ARARs related solid waste.	A regulatory waiver of certain standards is required to cap wastes in place at the Site under the Vermont Solid Waste Management Rules. This alternative will comply with all other action-specific standards regarding air and water quality protection during construction and monitoring.	A regulatory waiver of certain standards is required to cap wastes in place at the Site under the Vermont Solid Waste Management Rules. This alternative will comply with all other action-specific standards regarding air and water quality protection during construction and monitoring.	This alternative complies with Action-specific ARARs	A regulatory waiver of certain standards is required to consolidate, solidify, and cap wastes at the Site under the Vermont Solid Waste Management Rules. The alternative will comply with all other action-specific standards regarding treatment (solidification), air and water quality protection during construction and monitoring.
Description					
Long Term Effectiveness					
This alternative would not remove or contain contaminated soil, ground water or sediment, and would not be effective as a remedy.	<p>This alternative would not remove or contain contaminated soil, ground water or sediment, and would not be effective as a remedy.</p> <p>Ground water contamination will likely decrease over time to acceptable levels that will be confirmed by monitoring.</p> <p>Long term effectiveness will rely on the success of the perimeter fence to keep trespassers off of the site.</p>	<p>Containment would reduce the long-term risks associated with the contaminated soil and waste to within the target range.</p> <p>Ground water contamination will likely decrease over time to acceptable levels that will be confirmed by monitoring.</p>	<p>Containment would reduce the long-term risks associated with the contaminated soil and waste to within the target range.</p> <p>Ground water contamination will likely decrease over time to acceptable levels that will be confirmed by monitoring.</p>	<p>Removal of the contaminated soil and waste would reduce the long-term risks associated with the contaminated soil and waste to within the target range.</p> <p>Ground water contamination will likely decrease over time to acceptable levels that will be confirmed by monitoring.</p>	<p>Containment and treatment would reduce the long-term risks associated with the contaminated soil and waste to within the target range.</p> <p>Ground water contamination will likely decrease over time to acceptable levels that will be confirmed by monitoring.</p>

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<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>
Description					
Reduction of Toxicity, Mobility, and Volume Through Treatment					
This alternative does not meet this criteria since it does not include treatment.	This alternative does not meet this criteria since it does not include treatment.	This alternative does not meet this criteria since it does not include treatment.	This alternative does not meet this criteria since it does not include treatment.	This alternative does not meet this criteria since it does not include treatment.	<p>The volume of waste would increase by 10-15% due to the addition of stabilization agents.</p> <p>The toxicity of the soil and waste would be reduced as a result of the stabilization that would bind the contaminants to the solidified matrix.</p> <p>Ground water cleanup levels would likely be reached rapidly, since there are only a few exceedances and they are slight.</p>
Description					
Short-Term Effectiveness					
There are no short term risks with this alternative because there is no construction involved. The estimated time to achieve cleanup goals is many years or decades.	<p>There are no short term risks with this alternative because there is no construction involved. The estimated time to achieve cleanup goals is many years or decades.</p> <p>Workers performing inspections and sampling teams will be health and safety trained and should use protective equipment where applicable.</p>	<p>There is a very limited short-term potential for risk to the community from inhalation of fugitive dust, however, the remedial action is required to control dust at the Site.</p> <p>Site runoff and soil erosion controls would be needed during all major soil disturbance to minimize short term effects on adjacent wetland and surface water areas.</p>	<p>There is a very limited short-term potential for risk to the community from inhalation of fugitive dust, however, the remedial action is required to control dust at the Site.</p> <p>Site runoff and soil erosion controls would be needed during all major soil disturbance to minimize short term effects on adjacent wetland and surface water areas.</p>	<p>There is a very limited short-term potential for risk to the community from inhalation of fugitive dust, however, the remedial action is required to control dust at the Site.</p> <p>Short term risks related to transportation of contaminated soil and waste via truck to the disposal facility are also a potential risk during transportation.</p>	<p>There is a very limited short-term potential for risk to the community from inhalation of fugitive dust, however, the remedial action is required to control dust at the Site.</p> <p>Site runoff and soil erosion controls would be needed during all major soil disturbance to minimize short term effects on adjacent wetland and surface water areas.</p>

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<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>
		Workers performing inspections and sampling teams will be health and safety trained and should use protective equipment where applicable.	Workers performing inspections and sampling teams will be health and safety trained and should use protective equipment where applicable.	Site runoff and soil erosion controls would be needed during all major soil disturbance to minimize short term effects on adjacent wetland and surface water areas. Workers performing inspections and sampling teams will be health and safety trained and should use protective equipment where applicable.	Workers performing inspections and sampling teams will be health and safety trained and should use protective equipment where applicable.
Description					
Implementability					
Technical Feasibility					
This alternative is technically feasible since there is no technical activity involved.	This alternative has high technical feasibility since it relies only on sampling (sampling methods are well developed) and installation of fencing (which is a standard field task).	A small amount of soil and waste will be excavated during regrading as part of this alternative. Although none of the excavation is expected to be below the water table, there will be excavation work near the riverbank that will pose some challenging (though not insurmountable) technical feasibility issues. Construction of the cap within the 100-year Floodplain is technically feasible, and the means and methods for this type of activity are well documented.	A large amount of soil and waste will be excavated during regrading as part of this alternative and much of the excavation will be in the saturated zone. This will result in concerns over dewatering, disposal of the water, ground stability, and overall safety. Construction of the cap within the 100-year floodplain is technically feasible, and the means and methods for this type of activity are well documented. This sampling and	A large amount of soil and waste will be excavated during regrading as part of this alternative and much of the excavation will be in the saturated zone. This will result in concerns over dewatering, disposal of the water, ground stability, and overall safety. There are significant feasibility concerns associated with locating a suitable and willing disposal facility for the soil and waste due to the dioxin content. This sampling and	Ex-situ stabilization has a moderate level of technical feasibility due to the complexities associated with dewatering, screening, blending, curing and placement of the material back in the ground. A large amount of soil and waste will be excavated during regrading as part of this alternative and much of the excavation will be in the saturated zone. This will result in concerns over dewatering, disposal of the water, ground stability, and overall safety.

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<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>
		This sampling and fencing components of this alternative have high technical feasibility since they rely only on sampling (sampling methods are well developed) and installation of fencing (which is a standard field task).	fencing components of this alternative have high technical feasibility since they rely only on sampling (sampling methods are well developed) and installation of fencing (which is a standard field task).	fencing components of this alternative have high technical feasibility since they rely only on sampling (sampling methods are well developed) and installation of fencing (which is a standard field task).	Construction of the cap within the 100-year Floodplain is technically feasible, and the means and methods for this type of activity are well documented. This sampling and fencing components of this alternative have high technical feasibility since they rely only on sampling (sampling methods are well developed) and installation of fencing (which is a standard field task).
Description					
<i>Administrative Feasibility</i>					
There are no Administrative feasibility issues with this alternative.	Coordination and implementation would be required for the long term monitoring and site inspections that are part of this alternative. Preparation and recording of the institutional controls will be required.	Coordination and implementation would be required for the long-term monitoring and site inspections that are part of this alternative. Preparation and recording of the institutional controls will be required.	Coordination and implementation would be required for the long-term monitoring and site inspections that are part of this alternative. Preparation and recording of the institutional controls will be required.	Soil and waste transportation may require various permits. Coordination and implementation would be required for the long-term monitoring and site inspections that are part of this alternative. Preparation and recording of the institutional controls will be required.	Coordination and implementation would be required for the long-term monitoring and site inspections that are part of this alternative. Preparation and recording of the institutional controls will be required.

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<i>Availability of Services and Materials</i>					
There are no issues related to service and materials for this alternative since no services and materials are required.	All of the needed services and materials are readily available for this alternative.	<p>Services and materials are available for the regrading and cap construction work. Services and materials are also available for any sampling and fencing work and for implementation of institutional controls.</p> <p>There are several local sources of materials that could be used for cap construction.</p>	<p>Services and materials are available for the regrading and cap construction work. Services and materials are also available for any sampling and fencing work and for implementation of institutional controls.</p> <p>There are several local sources of materials that could be used for cap construction.</p>	<p>Services and materials are available for the excavation and transportation work. Services and materials are also available for any sampling and fencing work and for implementation of institutional controls.</p> <p>No solid waste facilities have confirmed that they will accept the volume of dioxin-contaminated waste to be generated. The contaminated waste may have to be exported to Canada for treatment and disposal at a high cost. Locating a facility permitted to accept dioxin contaminated waste material would be difficult.</p>	<p>Services and materials are available for the stabilization/solidification and capping work. Services and materials are also available for any sampling and fencing work and for implementation of institutional controls.</p> <p>There are several local sources of materials that could be used for cap construction.</p>

Table B-2: Remedial Action Alternatives Summary					
<i>RAA-1</i>	<i>RAA-2</i>	<i>RAA-3</i>	<i>RAA-4</i>	<i>RAA-5</i>	<i>RAA-7</i>
Description					
<p>No Remediation.</p> <p>Site Review every five years.</p>	<p>Long-term monitoring of ground water, sediment and surface water. Site inspected annually and site review every five years.</p> <p>Installation of perimeter fencing and implementation of institutional controls to prevent ground water consumption from the Lagoon Area and Landfill Area.</p>	<p>Regrading of Lagoons 1, 3 and 5 and construction of a solid waste cover system including a gas vent layer and low permeability layer.</p> <p>Long-term monitoring of ground water, sediment and surface water. Site inspected annually and Site Review every five years.</p> <p>Installation of perimeter fencing and creation of institutional controls to prevent ground water consumption from the Lagoon Area and Landfill Area.</p>	<p>Consolidation of waste in Lagoons 1, 3 and 5 and construction of a solid waste cover system including a gas vent layer and low permeability layer.</p> <p>Long-term monitoring of ground water, sediment and surface water. Site inspected annually and Site Review every five years.</p> <p>Installation of perimeter fencing and creation of institutional controls to prevent ground water consumption from the Lagoon Area and Landfill Area.</p>	<p>Excavation, dewatering, and off-site disposal of waste in Lagoons 1, 3 and 5. Disposal would be at a solid waste facility that will accept dioxin-contaminated waste.</p> <p>Long-term monitoring of ground water, sediment and surface water. Site inspected annually and Site Review every five years.</p> <p>Installation of perimeter fencing and creation of institutional controls to prevent ground water consumption from the Lagoon Area and Landfill Area.</p>	<p>Ex-situ solidification/stabilization of waste in Lagoon 1, 3, and 5 using Portland Type II cement and fly ash.</p> <p>Placement of waste in consolidated footprint, covered with soil cap.</p> <p>Long-term monitoring of ground water, sediment and surface water. Site inspected annually and Site Review every five years.</p> <p>Installation of perimeter fencing and creation of institutional controls to prevent ground water consumption from the Lagoon Area and Landfill Area.</p>
Capital Cost =\$50K	\$0.4M	\$7.6M	\$7.6M	\$23.0M	\$9.7M
O&M Cost = \$0	\$1.0M	\$1.1M	\$1.2M	\$1.0M	\$1.0M
TOTAL Cost =\$50K	\$1.4M	\$8.7M	\$8.8M	\$24.0M	\$10.7M

Table B-3: ARAR and TBC Summary for Alternative-4, Consolidation and Capping

Site Feature/ Authority	Media	Requirements	Status	Requirement Synopsis	Action to be taken to attain ARAR
LOCATION-SPECIFIC					
Federal Regulatory Requirements	Wetlands, Floodplains, Streams, or Water Body	Federal Executive Order 11988, Floodplain Management	Applicable	Requires EPA to consider Alternatives to minimize impacts to floodplain for any federal actions, including engineering measures to minimize impacts. EPA must choose the best practicable Alternative for either avoiding or minimizing impacts to the floodplain.	Alternative-4 involves placement of a landfill cover system in the 100-year floodplain of the Hoosic River. Preliminary design calculations indicate that this Alternative will increase the flood storage capacity of the Hoosic River and have insignificant affects on the 100-year flood water elevation. The design for the cover system would incorporate engineering measures to minimize impacts to the floodplain. The consolidation of the contaminated lagoon material will move contaminated material from the active floodway to a higher (and less flood-prone) elevation within the floodplain. EPA has determined that on-site disposal within the floodplain is the best practicable Alternative since there are few off-site facilities that will accept dioxin-contaminated material, off-site disposal costs would be significantly higher, and there are no upland locations on-site for locating the disposal facility. The consolidated material will be capped in a manner that will prevent erosion, leaching, or other disturbance of the contaminated material in the event of flooding, up to a 100-year flood event.

Table B-3: ARAR and TBC Summary for Alternative-4, Consolidation and Capping

Table B-3: ARAR and TBC Summary for Alternative-4, Consolidation and Capping					
Site Feature/ Authority	Media	Requirements	Status	Requirement Synopsis	Action to be taken to attain ARAR
State Regulatory Requirements		Vermont Wetland Rules (adopted under 10 VSA sec. 905)	Applicable	These regulations establish criteria for delineating Class One, Class Two and Class Three wetlands. Class One and Class Two wetlands, which are considered significant wetlands that merit protection, and set forth allowed and conditional uses for these wetlands. The uses must not have undue adverse impacts on the significant functions of the wetland. Class Three wetlands are not protected under these rules; however they may be protected by other federal, state, or local regulations.	Alternative-4 involves destruction of State-regulated Class Three wetlands in Lagoons 1 and 5 but the state indicated that replacement of these wetlands is not necessary due to low function and the man-made nature, so this Alternative would comply with this requirement.
		Land Use and Development - Act 250 (10 VSA 6086)	Applicable	This statute requires that developments protect a number of land use criteria including: Streams, floodways, shorelines, wetlands, erosion control, and historic sites.	Substantive standards regarding criteria under the Act will be addressed by the remedial action including: air and water pollution, floodways, streams, shorelines, wetlands, and erosion control.
CHEMICAL-SPECIFIC					
Federal Criteria, Advisories, and Guidance	Soil/Sediment	NOAA Effects Range-Low and Median (ER-L and ER-M) values for marine and estuarine sediments	To be considered	The ER-L value is equivalent to the lower 10th percentile of the available toxicity data, which is estimated to be the approximate concentration at which adverse effects are likely to occur in sensitive life stages and/or species of sediment-dwelling organisms.	The ER-L value was used for selecting Chemicals of Potential Concern and for characterizing ecological effects.
		OSWER Directive 9200.4-26, Approaches for Addressing Dioxins in Soil at CERCLA and RCRA Sites (Apr. 13, 1998)	To be considered	This Directive provides guidance in establishing cleanup levels for dioxins. A 1 ug/kg (ppb) concentration of dioxins (as 2,3,7,8-TCDD TE) has been established for surficial soils involving residential exposure scenarios. A cleanup range of 5 to 20 ug/kg of dioxin (as 2,3,7,8-TCDD TE) was established for commercial and industrial exposure scenarios.	This OSWER policy was used to establish dioxin PRGs for Site remediation.

Table B-3: ARAR and TBC Summary for Alternative-4, Consolidation and Capping

Site Feature/ Authority	Media	Requirements	Status	Requirement Synopsis	Action to be taken to attain ARAR
		EPA Carcinogenicity Slope Factor	To be considered	Slope factors are developed by EPA from health effects assessments. Carcinogenic effects present the most up-to-date information on cancer risk potency. Potency factors are developed by EPA from Health Effects Assessments of evaluation by the Carcinogenic Assessment Group.	Site related risks due to carcinogens were noted in the Human Health Risk Assessment. Alternative-4 includes actions (capping) to prevent exposure to contaminants that were identified to cause risks, so this Alternative will comply with this requirement.
		EPA Risk Reference Dose (RfDs)	To be considered	RfDs are considered to be the levels unlikely to cause significant adverse health effects associated with a threshold mechanism of action in human exposure for a lifetime.	No site related risks due to noncarcinogens were noted in the Human Health Risk Assessment. Alternative-4 includes actions (capping) to prevent exposure to contaminants that were identified to cause risks, so this Alternative will comply with this requirement.
		Ontario Ministry of Environment and Energy (OMEE) Lowest and Severe Effect Levels (LELs and SELs) for Freshwater Sediments (Persaud et al. 1993)	To be considered	The LEL value is the concentration at which the majority of the sediment-dwelling organisms are not affected.	The LEL value was used for selecting Chemicals of Potential Concern and for characterizing ecological effects.
ACTION-SPECIFIC					
Federal Regulatory Requirements	Surface Water	CWA Ambient Water Quality Criteria (AWQC) (40 CFR 120)	Relevant and Appropriate	Remedial actions involving contaminated surface water or ground water must consider the uses of the water and the circumstances of the release or threatened release. Federal AWQC are health-based and ecologically based criteria developed for carcinogenic and non-carcinogenic compounds.	Long term monitoring will demonstrate future compliance with this requirement.

Table B-3: ARAR and TBC Summary for Alternative-4, Consolidation and Capping

Site Feature/ Authority	Media	Requirements	Status	Requirement Synopsis	Action to be taken to attain ARAR
		Clean Water Act National Pollutant Discharge Elimination System (NPDES) (40 CFR Parts 122 and 125)	Applicable	Establishes the specifications for discharging pollutants from any point source into the waters of the U.S.	Point source discharges anticipated during construction will be managed in accordance with these requirements.
Vermont Regulatory Requirements	Surface Water/Ground Water	Vermont Solid Waste Management Rules, EPR Chapter 6 (adopted under 10 VSA Chapter 159), Closure and Post-Closure, Subchapter 10.	Applicable	Requires the control, minimization or elimination of emissions or discharges of waste, waste constituents, leachate, contaminated runoff, and/or waste decomposition products to the ground water or surface waters or atmosphere.	Alternative-4 includes a cover system for the waste in place at the site. The cover system design will be developed to comply with this requirement.
	Surface Water	Vermont Water Quality Standards adopted under 10 VSA Chapter 47 (EPR Chapter 1)	Applicable	These standards establish water quality criteria for the maintenance of water quality and rules for determining acceptable point- and non-point-source discharges to the state's surface waters. Minimum water quality criteria are established. Specifies Federal AWQC to be used for effluent discharge limits or, where Federal limits are not available or are invalid, development of site-specific limits.	Long term monitoring will demonstrate future compliance with this requirement.

Table B-3: ARAR and TBC Summary for Alternative-4, Consolidation and Capping

Site Feature/ Authority	Media	Requirements	Status	Requirement Synopsis	Action to be taken to attain ARAR
		Vermont Solid Waste Management Rules, EPR Chapter 6 (adopted under 10 VSA Chapter 159), Design Standards, Subchapter 6, Operation Standards, Subchapter 7.(EPR 6-502, 503)	Applicable	These regulations outline siting criteria for solid waste management facilities or facilities improvements. Under the Rules solid waste facilities should not be sited in: Class III wetlands, in a 100-year floodplain, within 6 feet of the seasonal high groundwater level, within 300 feet of waters of the State, within 1000 feet of a drinking water source, and within 50 feet of a property line. Also, a facility is required to have a liner and a leachate collection system. However a waiver may be granted from these standards upon a finding that: 1) the proposed Alternative measures to the requirements will not endanger or tend to endanger human health or safety; 2) compliance with VT the specific standards would produce serious hardship by delaying the remedy and increasing costs significantly without equal or greater benefit to the public; 3) the material at the Site is not considered to be a hazardous waste subject to regulation under the Resource Conservation and Recovery Act (RCRA) Subtitle C; and 4) there is no practicable means known or available to meet both on-site disposal of the waste and certain requirements of the VT SWMR, however, the substitute or Alternative measures proposed in this cleanup plan would achieve an equivalent level of protection of public health and the environment.	Alternative-4 will result in the existing sludge lagoon system being consolidated and closed as a solid waste facility within the 100-year floodplain, without meeting the specifics standards under the Rules noted in the Requirement Synopsis. However, EPA has invoked the waiver provision because Alternative-4 will remove contamination from the higher energy floodway and consolidate the waste into one capped disposal facility that will be designed, constructed, and maintained to prevent erosion of the cap during flood events. Performance objectives for the landfill cap will be to prevent infiltration of surface water into the consolidated wastes, prevent releases of material through erosion and other causes, and prevent movement of wastes into the groundwater and adjacent Hoosic River. Alternative-4 will be protective of public health, safety, and the environment and will meet all of the Rule's standards for waiving specific provisions. There are no practicable Alternatives to meet both on-site disposal of the waste and the specific requirements under the Rules.

Table B-3: ARAR and TBC Summary for Alternative-4, Consolidation and Capping

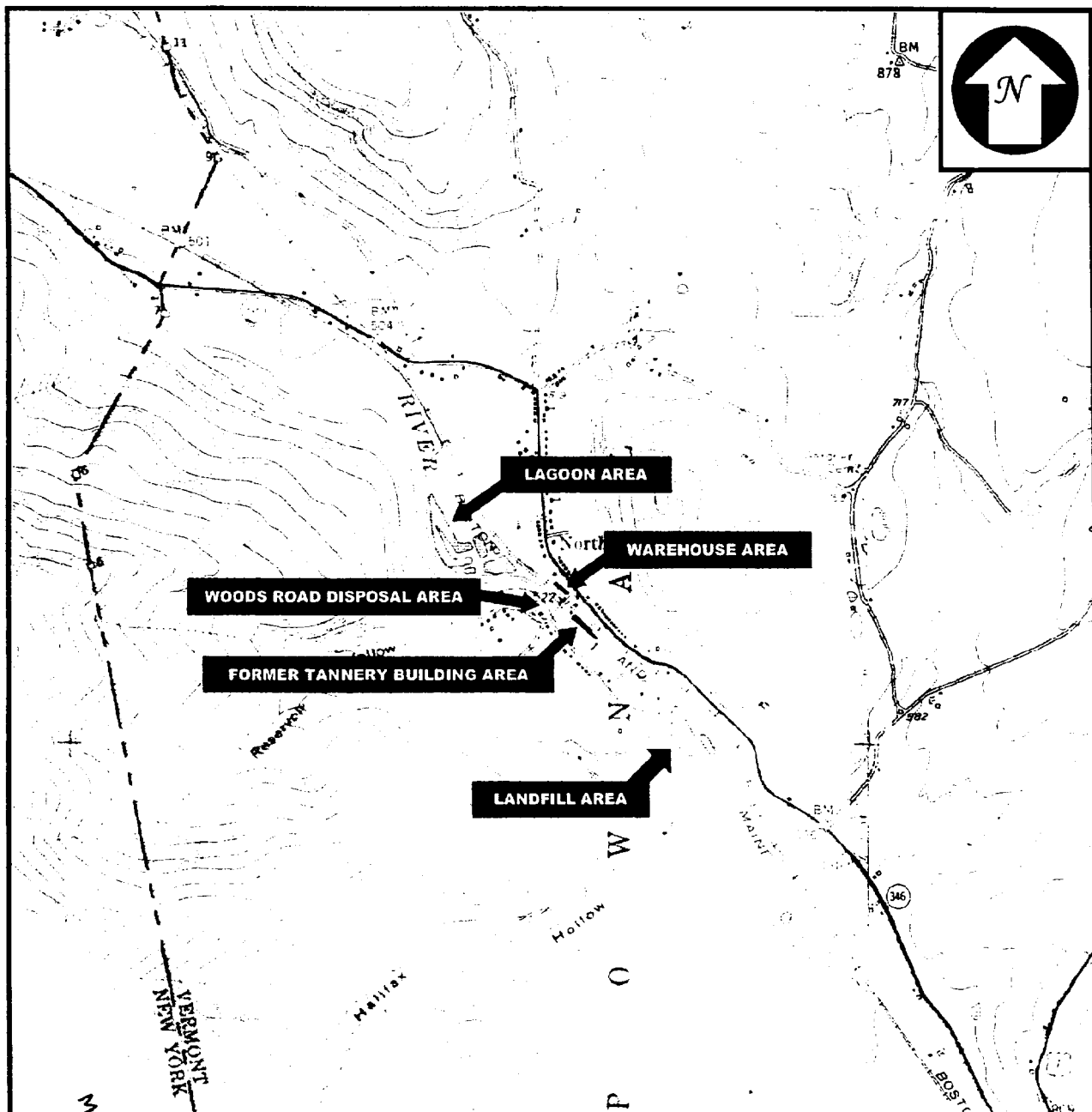
Site Feature/ Authority	Media	Requirements	Status	Requirement Synopsis	Action to be taken to attain ARAR
Vermont Criteria, Advisories, and Guidance (continued)	Ground Water	Vermont Department of Health Drinking Water Guidance (October 2000)	To be considered	Lists the Vermont Health Advisories (VHAs) for chemicals of concern in drinking water. Vermont Health Advisories are researched and calculated concentrations of chemicals in drinking water in instances where the chemicals do not have an MCL. The Vermont Health Advisories are a tool for risk assessment and should provide a margin of safety to people consuming water below these levels. If an advisory is exceeded, it does not necessarily follow that adverse health effects will occur, but that further evaluation of the water supply is warranted.	There are no persistent, site related exceedances of VHAs at the site. Long term monitoring will demonstrate future compliance with this requirement.
Vermont Regulatory Requirements	Surface Water	Vermont Water Quality Standards adopted under Vermont Water Pollution Control Act, 10 V.S.A. Chapter 47 (EPR Chapter 1)	Applicable	Designates uses for which various waters of Vermont will be maintained and protected. Minimum water quality criteria established. Specifies Federal AWQC to be used for effluent discharge limits. Surface Water Quality Standards are given for dissolved oxygen, temperature increase, pH, and total coliform.	Alternative-4 will prevent discharges of contaminants to surface water. Long term monitoring will demonstrate future compliance with this requirement.

Table B-4 Assessment Endpoints and Measures of Effect for Pownal Tannery Study Area		
Assessment Endpoints	Measures of Effect	Area(s)
Aquatic System		
Macrobenthic Community Diversity and Productivity	Comparison of bulk sediment concentrations with sediment guidelines associated with adverse effects to benthic biota; and evaluation of sediment SEM/AVS testing results on metal bioavailability.	1,2,3,4,5
Fish and Water Column Invertebrate Community Survival/Reproduction	Comparison of water contaminant concentrations with acute and chronic ambient water quality criteria and lowest acute and chronic adverse effect levels reported in scientific literature.	1,2,3,4,5
Amphibian Larvae Survival/Growth	Comparison of water contaminant concentrations with lowest survival or growth effect levels reported in scientific literature.	2,3,4
Avian Herbivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure doses received by Canada Goose to survival, reproductive, or growth effects reported in scientific literature.	1,2,3
Mammalian Herbivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure doses received by muskrat to survival, reproductive, or growth effects reported in scientific literature.	1,2,3
Avian Insectivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by spotted sandpiper to survival, reproductive, or growth effect concentrations reported in scientific literature.	1,2,3
Mammalian Insectivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by little brown bat to survival, reproductive, or growth effect concentrations reported in literature.	1,2,3
Avian Piscivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure doses received by belted kingfisher to survival, reproductive, or growth effect levels reported in literature.	1,3
Mammalian Piscivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure doses received by mink to survival, reproductive, or growth effect levels reported in literature.	1,3

Assessment Endpoints	Measures of Effect	Area(s)
Avian Carnivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by mallard to survival, reproductive, or growth effect concentrations reported in literature.	1,2,3
Mammalian Omnivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by raccoon to survival, reproductive, or growth effect concentrations reported in literature.	1,2,3
Terrestrial System		
Avian Omnivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by American robin to survival, reproductive, or growth effect concentrations reported in literature.	6
Mammalian Omnivore/Insectivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by deer mouse to survival, reproductive, or growth effect concentrations reported in literature.	6
Mammalian Herbivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by meadow vole to survival, reproduction, or growth effect concentrations reported in literature.	4,6,7
Avian Insectivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by American woodcock to survival, reproductive, or growth effect concentrations reported in literature.	4,6,7
Mammalian Insectivore Survival/Reproduction/ Growth	Comparison of estimated contaminant exposure dose received by short-tailed shrew to survival, reproductive, or growth effect concentrations reported in literature.	4,6,7

Areas:

- 1: Hoosic River
- 2: Lagoon Area (Aquatic Habitats)
- 3: Landfill Pond
- 4: Landfill Seeps
- 5: Landfill Stream (Halifax Hollow)
- 6: Lagoon Area (Terrestrial Habitats)
- 7: Landfill Wet Meadow



BASE MAP IS A PORTION OF THE FOLLOWING 7.5' USGS TOPOGRAPHIC QUADRANGLES:
POWNA, VT, 1954; NORTH POWNA, VT-NY, 1954, PHOTOREVISED 1980

0 1000 2000 3000
approximate scale in feet

Figure B-1
SITE LOCATION MAP
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
POWNA TANNERY
POWNA, VERMONT

M&E Metcalf & Eddy

TRC

Boott Mills South
Foot of John Street
Lowell, MA 01852
978-970-5600

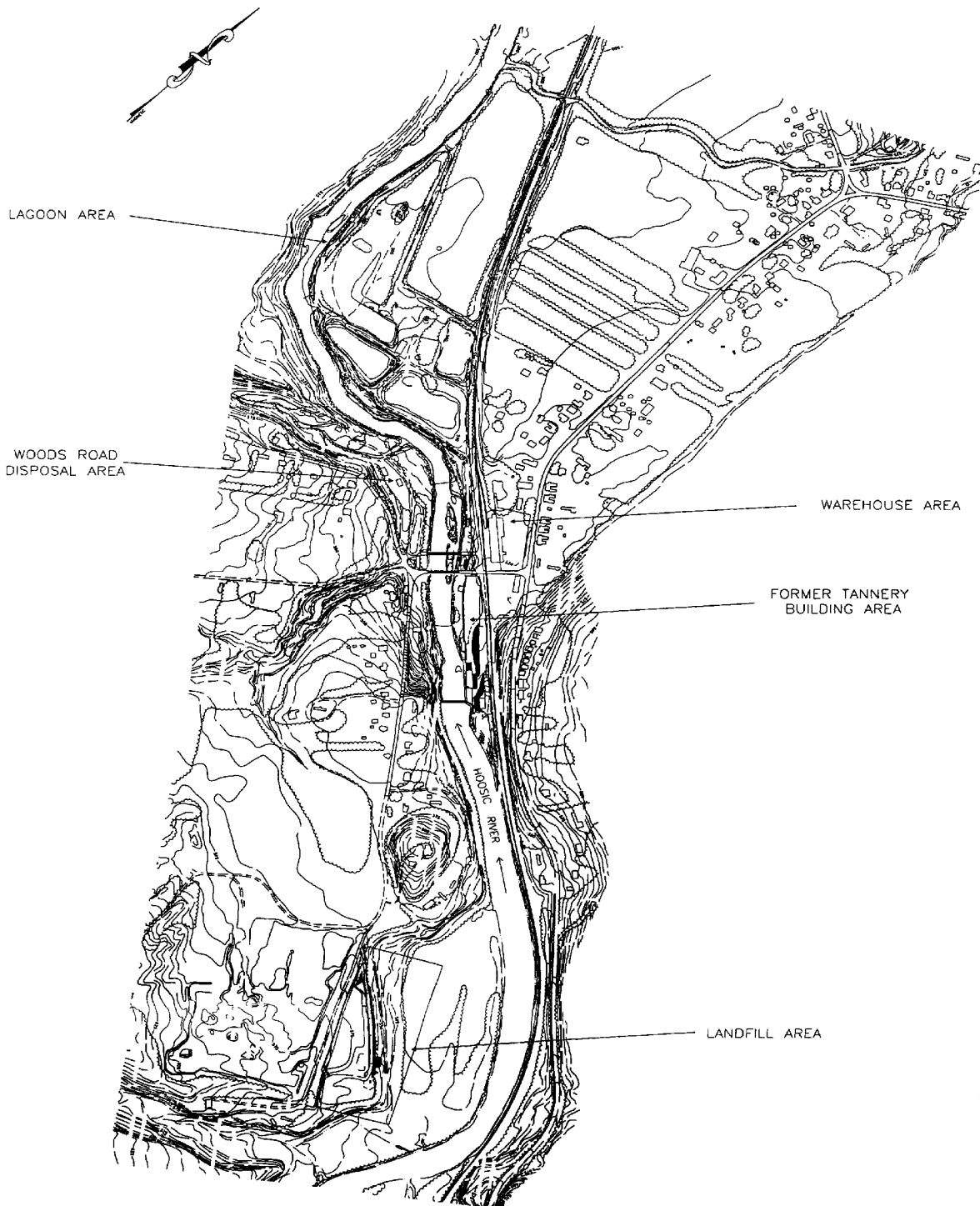
QUADRANGLE
LOCATION



TRC PROJ. NO.: 02136-0220-01N91

EPA CONTRACT NO.: 68-W6-0042

RAC SUBCONTRACTOR NO.: 107061



0 200 400 600 800 1000
SCALE IN FEET

LEGEND

— TANNERY PROPERTY BOUNDARY

TRC

Boolt Mills South
Foot of John Street
Lowell, MA 01852
978-970-5600

TRC PROJ. NO.: 02136-0220-01N93

EPA CONTRACT NO.: 68-W6-0042

RAC SUBCONTRACTOR NO.: 107061

FIGURE B-2
STUDY
AREA

POWNA TANNERY
POWNA, VERMONT

M&E Metcalf & Eddy



0 40 80 120 160
SCALE IN FEET

LEGEND



STAGING AREA



LANDFILL

APPROXIMATE LIMITS
OF EXCAVATION

1 LAGOON REFERENCE NUMBER



Wetland Delineation



Wetlands Created

\\PROJECTS\POWNA\FIGURES\LANDFILL\OPTIONS\LANDFILL_5_DESIGN_B

TRC

Boott Mills South
Foot of John Street
Lowell, MA 01852
978-970-5600

TRC PROJ. NO.: 02136-0220-01N93

EPA CONTRACT NO.: 68-W6-0042

RAC SUBCONTRACTOR NO.: 107061

FIGURE B-3
REMEDIAL ALTERNATIVE
IMPLEMENTATION
LAYOUT—RAA 4
POWNA TANNERY
POWNA, VERMONT

M&E Metcalf & Eddy

**POWNAL TANNERY SUPERFUND SITE
RECORD OF DECISION
SEPTEMBER 2002**

**APPENDIX C
ADMINISTRATIVE RECORD INDEX**

**Pownal Tannery Superfund Site
Record of Decision
Tannery Lagoons**

**Administrative Record
Index Addendum**

Proposed Plan Signed: July 18, 2002

**Prepared by
EPA-New England
Office of Site Remediation and Restoration**

Introduction

This document is the supplemental index to the Administrative Record originally compiled for the non-time critical removal action at the Pownal Tannery Superfund Site, North Pownal, Vermont. This supplement accompanies the Proposed Plan for the anticipated final action which encompasses the tannery lagoons. The citations in the index are for the documents used by the Environmental Protection Agency (EPA) in the process of selecting the response action at the site. Within the Administrative Record, documents are arranged in order by the Document Number that appears at the end of each citation in the Index.

The Administrative Record is available for public review at the EPA Region I Superfund Records Center, One Congress Street, Boston, MA 02114 [(617) 918-1440], and the Solomon Wright Public Library, PO Box 400, Pownal, VT 05621 [(803) 823-5400]. The Staff of the Superfund Records Center recommends that you set up an appointment prior to your visit.

Questions concerning the Administrative Record should be addressed to the EPA Project Manager for the Pownal Tannery Superfund Site.

An Administrative Record is required by the Comprehensive Environmental response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Re-authorization Act (SARA).

**POWNA TANNERY
ENTIRE SITE
ADMINISTRATIVE RECORD FILE
RECORD OF DECISION 9/2002**

3. REMEDIAL INVESTIGATION (RI)

1. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 1, TABLES FROM 4.3-2 TO END.

(PART 2 OF 2).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34940 07/01/2002 324 PAGES

2. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 1, TEXT AND TABLES 4.1

4.3-2(PART 1 OF 2).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34939 07/01/2002 335 PAGES

3. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 2, APPENDICES A - D,
(PART 1

OF 3).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34942 07/01/2002 344 PAGES

4. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 2, APPENDICES E - J,
(PART 2

OF 3).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34943 07/01/2002 336 PAGES

5. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 2, APPENDICES K - Z.
(PART 3

OF 3).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 35152 07/01/2002 413 PAGES

6. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 3, APPENDICES AA - DD,(PART

1 OF 5).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34945 07/01/2002 356 PAGES

7. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 3, APPENDICES EE - GG, TABLE

#3,(PART 2 OF 5).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34947 07/01/2002 339 PAGES

8. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 3, APPENDICES GG, TABLE #10

AND ATTACHMENTS,(PART 5 OF 5).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 35198 07/01/2002 214 PAGES

9. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 3, APPENDICES GG, TABLE #4 -

#7,(PART 3 OF 5).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34949 07/01/2002 272 PAGES

10. REPORT: FINAL REMEDIAL INVESTIGATION, VOLUME 3, APPENDICES GG, TABLE #8 &

#9. (PART 4 OF 5).

TO: US EPA REGION 1

AUTHOR: METCALF & EDDY INC

TRC COMPANIES INC

DOC ID: 34950 07/01/2002 339 PAGES

HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT

[These documents are located in the text of the Feasibility Study and the summary results are included as Appendix J]

4. FEASIBILITY STUDY (FS)

1. FACT SHEET: PROPOSED PLAN FOR POWNAL TANNERY SUPERFUND SITE.
AUTHOR: US ENVIRONMENTAL PROTECTION AGENCY
DOC ID: 33593 07/01/2002 11 PAGES
2. REPORT: FEASIBILITY STUDY, APPENDICES C - D, ATTACHMENT B,(PART 2 OF 6).
TO: US EPA REGION 1
AUTHOR: METCALF & EDDY INC
TRC COMPANIES INC
DOC ID: 34953 07/01/2002 304 PAGES
3. REPORT: FEASIBILITY STUDY, APPENDICES D(CONTINUED) - F.(PART 3 OF 6).
TO: US EPA REGION 1
AUTHOR: METCALF & EDDY INC
TRC COMPANIES INC
DOC ID: 34954 07/01/2002 186 PAGES
4. REPORT: FEASIBILITY STUDY, APPENDICES I & J (PART 6 OF 6).
TO: US EPA REGION 1
AUTHOR: METCALF & EDDY INC
TRC COMPANIES INC
DOC ID: 35236 07/01/2002
5. REPORT: FEASIBILITY STUDY, APPENDIX G (PART 4 OF 6).
TO: US EPA REGION 1
AUTHOR: METCALF & EDDY INC
TRC COMPANIES INC
DOC ID: 35234 07/01/2002
6. REPORT: FEASIBILITY STUDY, APPENDIX H (PART 5 OF 6).
TO: US EPA REGION 1
AUTHOR: METCALF & EDDY INC
TRC COMPANIES INC
DOC ID: 35235 07/01/2002
7. REPORT: FEASIBILITY STUDY, TEXT - APPENDIX B,(PART 1 OF 6).
TO: US EPA REGION 1
AUTHOR: METCALF & EDDY INC



TOWN OF POWNAL

P.O. Box 411, Pownal, VT 05261

Town Clerk: 823-7757 • Selectmen: 823-0132 • Fax: 823-0116

September 6, 2002

Ms. Leslie McVickar, Project Manager
USEPA
1 Congress Street
Number 1100, HBT
Boston, MA 02114-2023

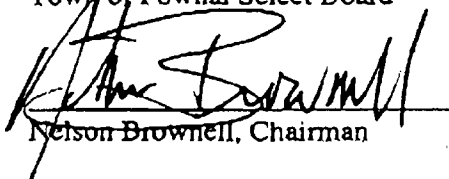
RE: Proposed Plan for the Lagoon Area of the Pownal Tannery Superfund site

Dear Leslie:

The Town of Pownal wishes to inform you that they are in agreement with the EPA proposed alternative cleanup plan for the tannery lagoon site. This plan provides the Town of Pownal with a method that will allow us to proceed with a number of options to improve our environment through reducing known and possible future pollution from entering the Hoosic River.

Thank you for presenting us with a plan that will meet our needs.

Sincerely,
Town of Pownal Select Board



Nelson Brownell, Chairman

Use This Space to Write Your Comments

or to be added to the mailing list

EPA wants your written comments on the options under consideration for dealing with the contamination at the Pownal Tannery Superfund site. You can use the form below to send written comments. If you have questions about how to comment, please call EPA Community Involvement Coordinator, Sarah White, at 617/918-1026 or toll free: 1-888-372-7341 (ext.81026). This form is provided for your convenience. Please mail this form or additional sheets of written comments, postmarked no later than **Monday, August 19, 2002** to:

Leslie McVickar
Remedial Project Manager
U.S. Environmental Protection Agency
Region I
One Congress Street
Suite 1100, HBT
Boston, MA 02114
FAX: 617-918-1291
or E-Mail to: mcvickar.leslie@epamail.epa.gov

Enclosed is the site plan showing my property in relation to the clean up site. Could you please explain to me the impact of the clean up and long term risks associated with the capping of the lagoons on my property. Has any testing been done on my property? Do you plan on using my property for access. I will not be able to attend the 8/7 meeting and will be out of town for approx. 3 mos. after 9/1/02.

(Attach sheets as needed)

Comment Submitted by: J. Burden

Mailing list additions, deletions or changes

If you did not receive this through the mail and would like to

- ☐ be added to the site mailing list
☐ note a change of address
☐ be deleted from the mailing list

P.O. Box 42
N. POWNAL, VT
Name: 05260
Address: _____

please check the appropriate box and fill in the correct address information above.

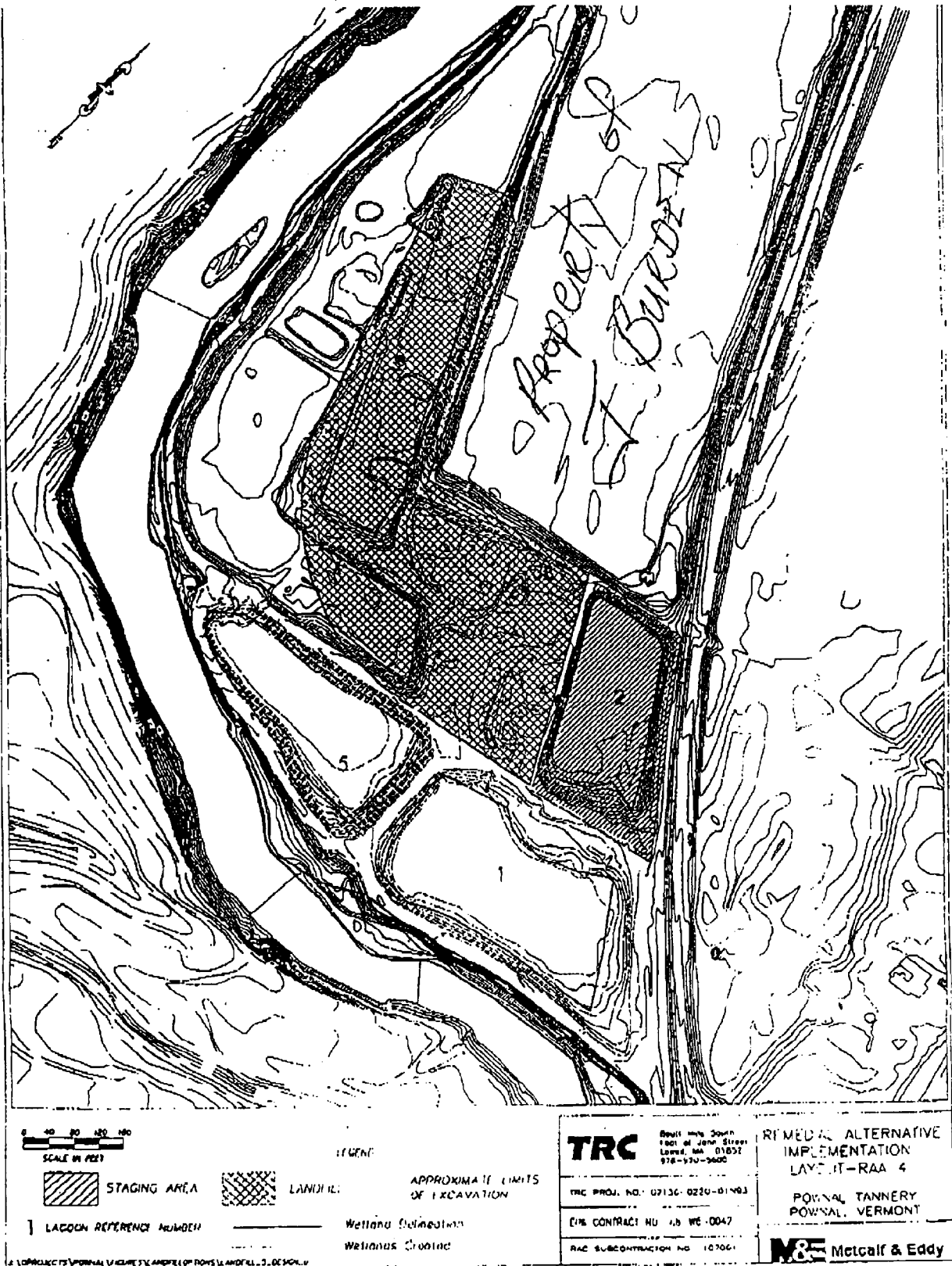


Figure 1: Pownal Tannery Superfund Site Lagoon area

Comments Pownal Tannery Superfund Site

**Leslie McVickar, RPM
US EPA Region I
One Congress Street
Suite 1100 (HBT)
Boston, Ma 02114-2033**

July 22, 2002

Thank you and your team for a very informative meeting on the Tannery Superfund site in Pownal, held at the school on Thursday, July 18th.

Please except these comments on your Cleanup Proposal from a resident of Pownal, a homeowner, taxpayer and a person interested in the future for our community and its main resource . . . its people.

I agree that the proposed remedy does NOT MEET standard siting requirements for a solid waste facility, as outlined in the Vermont Solid Waste Rules, wording page 2 of your handout on Thursday night.

I believe that the EPA decision to invoke its waiver right is wrong and shortsighted. The 100-year flood plain, its close proximity to the Hoosic River and adjoining property will impact this community, jeopardize the safety and health of its residents, and could cause a catastrophe in both human and property terms.

According to your handout at the meeting this capping, the proposed remedy, is designed to withstand flooding and not release contaminants into the river or neighboring properties . . . withstand does not guarantee that this area will be safe for the residents nor guarantee that contaminants will not be washed, leached, or drawn into the Hoosic River or water supplies in the area.

Feel this is a gamble this community should NOT make nor your organization force this upon the Pownal Community.

Construction in the 100-year flood plain is both prohibited by the Town Plan and is Restricted and defined by Act 250, State of Vermont.

Your teams comments on the Dam at the site, its apparent weakness, the possibility of failure does not give one a sense of security about this project . . . especially in light of recent flooding incidents in central Vermont and the resulting hardships on both its residents and property. As well as its overall impact on the communities that this flooding impacted.

Your team also spoke about the PCB's in the Hoosic River, which you and EPA feel are not related to the superfund site, but upstream problems from Massachusetts. Sprague Electric was mentioned as a "hot spot" for this discharges and that if

Comments Pownal Tannery Superfund Site

the proposed EPA solution is carried out and completed, that the Hoosic River will still be impaired, and that solutions to cleanup of the river will be a joint effort by both Massachusetts and Vermont. Recent events discount too much support of this approach . . . EPA has fined the Williamstown Sewage Water System some \$140,000. for inappropriate discharges into the river . . . a recent spill of red dye into the river went unreported for some hours, while state to state representatives, did not talk and consult with one another, to communicate this problem with themselves or the people their serve. Both Vermont with a budget shortfall of some \$39 million, also Mass. facing similiar budgetary constraints will be hardpressed to work to solve the PCB problem in the Hoosic River.

EPA's grant of some \$100,000. to the Town of Pownal for a reuse study, has generated . . . a soccer field concept . . . with the river imparied, swimming, fishing, water sports or related recreation activities for our residents will be severely limited, and not foster community activities worthy of a multi-use recreation area. To tout this area as a recreational complex for the Town of Pownal is both wrong and misleading to the public and the greater Southwestern Vermont, Massachusetts, New York area. Does EPA feel that families will seriously entertain going to the Pownal Waste Water Facility/ Toxic Waste Storage Lagoon Recreation area for a picnic? A church outing? A company function?

Executive Order 11988, states that if practical alternatives exist, to the alternate proposed, they should be considered. I recommend cap in place approach, without the consolidation excavation of saturated and unsaturated contaminated soil/sluge in lagoon 1 and 5, having them resourced to lagoon 3 and in the southeast corner of lagoon 4. This keeps the material where it is, with better capping assurances of the public security and safety in mind, it also avoids disturbing the material in these lagoons so that they are not made mobile to either the public or the adjacent Hoosic River. This recommendation will meet the Protectiveness (human health), long term effectiveness, better implementation, cost \$8.4 millions (your estimate), should meet state acceptance, and most importantly the communities acceptance.

Also the critical balancing of keeping toxicity, mobility, and volume of contaminants in a balanced criteria will better be preserved, with a capping in place approach.

Further the odor, from excavation, will be limited and more controllable, as will dust, noise and improve the monitoring process, by capping in place approach.

And I believe that capping in place will keep unacceptable health risks, current and future to a minimum, also better keep ecological concerns in acceptable levels, prevent direct contact with lagoon soil/sludge, prevent erosion of soils to the Hoosic River, and keep and better maintain the primary target levels of lead, dioxin, PCP, Arsenic, and Chromium to acceptable EPA levels.

Comments Pownal Tannery Superfund Site

It is noted that the EPA proposed consolidation and cap, still after 30 years plus would restrict the property use, and would agree with the cap in place approach in every one of the nine criteria except that partially meets Federal and State requirements.

The Capital cost is the same, with a slight savings in the cap in place approach, on operation and maintenance . . . while the cap in place approach will put safety and health issues above the recreation reuse . . . soccer field.

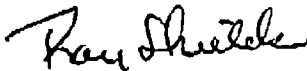
This community in March of this year voted down to bond/purchase additional land adjacent to the Superfund Site, by a 60 per cent vote. While our Town Representatives pursue this acquisition, the majority of the voting public was/and is against it. While we recognize the importance of containing sewage into the Hoosic River, it continues to this day, a proposed waste water treatment facility is a far cry from a safe play area for our residents and neighbors. Securing the area for the future safety and benefit of our residents should be the primary goal.

And with the current state of the Federal Budget, some \$165 Billion, in deficit, there are not assurances and guarantees that enough monies will be forthcoming to carry out the Proposed EPA Option, and most importantly guarantee that the necessary operations and maintenance of the proposed capping will be done on a regular basis to satisfy the public need for safety and monitoring of ongoing health issues.

Likewise Vermont is in Budget deficit and monies are tight and again there are not assurances or guarantees that the maintenance and operations will be done on a regular basis for both safety and health concerns, and keep the area secure regardless of the proposal accepted as best.

I strongly recommend containment, cap in place approach, which essentially meets the criteria necessary for completion of this project for the good of the public and long term health issues and safety of the community. Option 3.

Thank you again for this opportunity to comment on this vital issue to our Pownal community.



Ray Shields
465 Center Street,
Pownal, Vermont
05261



State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

Office of the Commissioner
103 South Main Street
Building 1 South
Waterbury, VT 05671-0401

Phone: (802) 241-3808
Fax: (802) 244-5141

August 23, 2002

Mr. Richard Cavagnero, Acting Director
Office of Site Remediation and Restoration (OSRR)
EPA New England
1 Congress Street, Suite 1100
Boston, Ma 02114-2023

RE: VT Comments on the Proposed Cleanup Plan for the Pownal Tannery Lagoons- Site #77-0066

Dear Mr. Cavagnero:

The State of Vermont Department of Environmental Conservation (VTDEC) has completed its review of the proposed cleanup plan for the Pownal Tannery Lagoons. The plan calls for the excavation and consolidation of tannery wastewater sludge, and containment of the sludge underneath an engineered landfill cap. The implementation of this remedy is planned for the 2003 construction season, and will be coordinated with the proposed construction of a wastewater treatment plant for the town of Pownal that is planned to be located in the lagoon area.

The VTDEC concurs with the proposed consolidation and capping remedy. The department has the following comments on the proposed plan and its implementation:

VTDEC concurrence with this remedy is predicated on the assumption that both the lagoon cleanup and the wastewater treatment plant projects can be initiated in 2003. The state believes that the high cost of the proposed remedy can only be justified by the health risk reduction that will be realized by the completion of both the lagoon cleanup and the wastewater treatment plan project in a timely manner.

The VTDEC understands that the state will be responsible for 10% of the capital construction costs of the proposed remedy, plus all operation and maintenance costs. The total capital cost of the remedy is currently \$7.8 million. Based on this estimate, the state's share of capital costs is currently projected to be \$780,000. The operation and maintenance costs are projected to be approximately \$1 million over 30 years. In addition, the VTDEC currently is performing operation and maintenance activities at the former mill building and landfill areas. The VTDEC currently has approximately

\$621,000 available in dedicated funds to fulfill these obligations. The VTDEC will be seeking legislative approval for the balance of the funds needed, but legislative approval cannot be assured in this or subsequent years. The VTDEC intends to fulfill its obligations under CERCLA to the best of its abilities, given the funding constraints that may exist over the life of the project.

This project will be the first Superfund-financed remedial action in the state. Since the state will bear a percentage of the project costs, the state expects to be an active partner in providing design guidance and construction oversight for this project. We are confident that EPA will be able to accommodate our need to share in design and construction decisions.

Recent amendments to the Solid Waste Management Rules (§301(d)) and Statutes (10 VSA §6605(d) & §6614) allow the Secretary to waive certain statutory and rule requirements for solid waste facilities constructed as a part of a state or federal environmental response action. The Secretary of the Agency of Natural Resources must make a written finding prior to issuing a waiver that such a project will not adversely affect public health, safety or and the environment and that the technical and siting requirements will be complied with to the extent practical in light of the overall objectives of the response. Such a finding will need to be made for this project based on VTDEC review of the final design for the facility. VTDEC concurrence with the proposed plan should not be construed as a substitute for this finding or as an obligation to make such a finding at the conclusion of the design phase.

The Human Health Risk Assessment for the site identified Hoosic River sediments as a human health risk due primarily to the presence of polychlorinated byphenals (PCBs). It is believed that these substances are not related to the Pownal Tannery site, and the proposed remedy will not address this risk. However, the Town of Pownal has plans to redevelop a portion of the property for recreational use. This proposed redevelopment could attract residents, and particularly children, to the vicinity of the river where they could become exposed to river sediments. The VTDEC is not prepared to approve or endorse recreational redevelopment of this site at this time. The existing data needs to be reviewed further, and additional data may need to be collected before the department can determine what, if any, recreational development is appropriate for this location. Institutional controls will need to be developed to help prevent unacceptable uses of the site, if any are determined

The VTDEC River Corridor Management Section has developed a number of recommendations for the project, based on their review of the floodplain modeling study performed for EPA by TRC Environmental and on a field visit in June 2002. Their recommendations are reproduced below, and the VTDEC asks that they be addressed during the design phase of the project:

1. The Option 2 footprint presented in the floodplain modeling study should be the recommended alternative due to its limited encroachment within the floodway.
2. A Letter of Map Revision should be requested from FEMA.
3. Any partial removal of the levee should be carefully considered and modeled with respect to possible erosion of the restored flood plain, the remaining portions of the levee, and the return flow path to the river.

Richard Cavagnero
August 23, 2002
Page 3 of 3

4. In the event of partial levee removal, and in anticipation of flood plain routing resulting in significant velocity, the streamward toe of the waste landfill must be armored to an appropriate elevation.
5. Any engineering or hydraulic calculations or projections associated with project design should be conservatively adjusted to account for potential mass wasting failures occurring during design storm discharge events.
6. Any anticipated or proposed partial removal of the levee must be accompanied by a comprehensive riparian buffer revegetation and maintenance plan.
7. Full site reclamation design, and future development plans for portions of the site by others, should be accompanied and supported by a riparian buffer establishment and permanent protection plan. Such buffer should not be less than 100 feet in width and, wherever possible, wider.

The VTDEC looks forward to the successful implementation of this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Recchia", written over a horizontal line.

Christopher Recchia
Commissioner

cc: Leslie McVickar, USEPA
Brian Woods, VTDEC

**POWNAL TANNERY SUPERFUND SITE
RECORD OF DECISION
SEPTEMBER 2002**

**APPENDIX D
MEMORANDUM OF AGREEMENT, NTCRA, AUGUST 2002**



State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

July 3, 2002

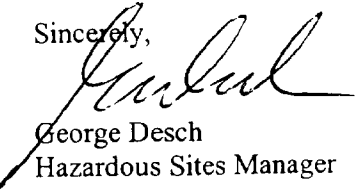
Mary Jane O'Donnell
HBT
USEPA REGION 1
1 Congress Street
Suite 1100
Boston MA 02114-2023

Dear Mary Jane,

I am pleased to transmit the enclosed Memorandum of Agreement between the State of Vermont and the USEPA for the post NTCRA activities associated with the Pownal Tannery site, Pownal, Vermont. The MOA has been signed by Commissioner Recchia and should be ready for signature by Patricia Meaney. Once executed, please return a copy of the document for completion of our files.

Thank you for your patience and persistence in our deliberations over this document and all the energy which you and Leslie McVickar have brought to this project and the community. I am sure you understand the significance of entering into such a commitment for the State of Vermont. I look forward to continued progress and eventual completion of the site remediation and revitalization of the site.

Sincerely,


George Desch
Hazardous Sites Manager

MEMORANDUM OF AGREEMENT BETWEEN
THE STATE OF VERMONT
AND THE
U.S. ENVIRONMENTAL PROTECTION AGENCY
FOR THE SOIL COVER SYSTEM/FORMER TANNERY BUILDING
POWNA TANNERY SUPERFUND SITE
POWNA, VERMONT

1. PURPOSE OF THIS MEMORANDUM OF AGREEMENT

This Memorandum of Agreement (MOA) is entered into between the U.S. Environmental Protection Agency (EPA) and the State of Vermont (State), acting by and through its Department of Environmental Conservation, (DEC) to implement response activities at the Pownal Tannery Superfund Site in Pownal, Bennington County, Vermont (the Site). Attached hereto and incorporated herein as Appendix A is a description of the Site and the response actions taken to date in connection with the Site. This agreement covers those response activities described in the Statement of Work (the SOW), attached hereto and incorporated herein as Appendix B. This agreement also covers and incorporates herein by reference the activities and processes described in detail in Appendix C, entitled "Operation and Maintenance Plan" (the "O&M Plan"). The purpose of this MOA is to document State responsibility for the Operation and Maintenance activities of the Non-Time Critical Removal Actions taken in 1999 and 2000 and the March 1999 Action Memorandum (Appendix D). The Parties acknowledge that this MOA is not a Superfund State Contract or a cooperative agreement for purposes of CERCLA Sections 104(c) and (d) and the implementing regulations. The Parties further agree that this MOA does not contravene any relevant requirement of CERCLA and the National Contingency Plan."

2. DEFINITIONS

As used in this agreement, unless the context clearly indicates otherwise, the following terms shall have the following meanings:

"Operation and Maintenance" (O&M) shall mean operating, repairing, servicing, and/or other measures necessary to maintain the effectiveness of the implemented removal action, such activities being more particularly described in the March 1999 Action Memorandum (Appendix D) and the O&M Plan (Appendix C).

"Project" shall mean the response activities described in Appendix B, the SOW.

"Response," "remedy" and "removal action" shall have the meaning provided for each term, respectively, under Section 101 of CERCLA, 42 U.S.C. 9601.

"Site" shall mean the Pownal Tannery Superfund Site as described in Appendix B.
"Work" shall include, but shall not necessarily be limited to, Operation and Maintenance activities as described in Appendix C, the O&M Plan, and in Appendix B, the SOW.

3. DURATION OF THIS AGREEMENT

A. This agreement shall become effective upon execution by EPA and the State, and shall remain in effect until such time that an alternate agreement or contract to maintain O&M activities as described in Appendix C is executed, and determined to be acceptable by EPA and the State.

B. This Contract may be terminated before the response described herein is completed if EPA and the State jointly agree in writing.

C. In the absence of a termination agreement or modification of the agreement, this agreement will be reviewed by the State and EPA every ten years and modified if agreed to by both parties.

4. DESIGNATION OF PRIMARY CONTACTS AND THEIR RESPONSIBILITIES

A. This agreement is between EPA and the State, the latter acting by and through its DEC.

B. EPA has designated:

Leslie McVickar
US Environmental Protection Agency
One Congress Street, Suite 1100, HBT
Boston, MA 02114-2023
(617) 918-1374

to serve as Remedial Project Manager (RPM) for this agreement. The designated RPM may be changed by letter to the State and incorporated by reference herein without amending this agreement.

C. The State has designated:

Brian Woods
Vermont Agency of Natural Resources,
Department of Environmental Conservation
103 South Main Street, West Building
Waterbury, Vermont 05671
(803) 241-3885

to serve as the State Project Manager (SPM) for this agreement. The designated SPM may be changed by letter to the EPA and incorporated by reference herein without amending this agreement.

D. The RPM shall be responsible for the overall administration of the agreement.

E. The RPM, after consultation with the SPM, may make project changes that do not substantially alter the scope of the response actions at the Site.

F. Any disagreements between the RPM and SPM shall be resolved through their chains of command and/or signatories to this agreement.

5. NEGATION OF AGENCY RELATIONSHIP

Nothing contained in this MOA shall be construed to create, either expressly or by implication, the relationship of agency between EPA and the State. EPA (including its employees, agents, and contractors) is not authorized to represent or act on behalf of the State in any matter relating to the subject matter of this agreement, and the State (including its employees, agents, and contractors) is not authorized to represent or act on behalf of EPA in any matter relating to this agreement.

6. SITE DESCRIPTION

A description of the Site -- including its location, background, chronology of events, physical characteristics (i.e., Site geology and proximity to drinking water supplies), the nature of the release (contaminant type and affected media), past response actions at the Site by EPA, the State, or others, and the response action at the Site is documented in Appendix A and in the Action Memorandum for the Non-Time Critical Removal Action (NTCRA) attached as Appendix D.

7. RESPONSIBILITIES OF PARTIES

A. The EPA, as lead agency, arranged for the services of the Corps of Engineers (COE) and their contractors to perform the work described in the March 1999 Action Memorandum (Appendix D) and the SOW (Appendix B), excluding those activities described in the O&M Plan. EPA shall make all payments to the COE and their contractors for such work. EPA, at its own expense, shall perform its responsibilities as described in Appendix D and B under this agreement. The EPA shall consult with the State on matters relating to the implementation of the work described in Appendix B.

B. The State will assure all future maintenance of the removal actions provided for the expected life of such actions as determined by EPA. By entering into this Agreement the State assures EPA that all future O&M associated with the NTCRA and SOW shall be implemented by the State in accordance with the Action Memorandum and the Site O&M Plan, attached as Appendix D and Appendix C, and that all costs of O&M shall be paid by the State for the expected life of the Project.

C. The State identifies the DEC as the organizational unit that shall be responsible for the State's operation and maintenance obligations. The DEC shall perform or arrange for the services of a contractor necessary to perform the Operation and Maintenance work described in the Operation and Maintenance Plan in Appendix C.

8. SITE ACCESS AND REAL PROPERTY INTERESTS

A. The EPA and the State agrees, to the extent of their legal authority, to secure access to the Site and adjacent properties, as well as all rights-of-way, easements and any and all property interests necessary to complete the response activities undertaken pursuant to this contract. In the event that the EPA or the State is unsuccessful in securing such access or real property interests, EPA will exercise its authority under Section 104 of CERCLA as amended by SARA to obtain said access and/or real property interests for itself and the State. The State agrees to accept title to any and all real property interests acquired by itself or transferred by EPA pursuant to Section 104 (j) of CERCLA as amended by SARA.

B. As requested by EPA, the State shall obtain or assist EPA in obtaining any permits that are necessary to satisfactorily complete the activity described in the SOW and the O&M Plan.

C. No property acquisitions shall be made in relation to the Site response without prior EPA approval.

9. STATE ACCESS

Representatives of the State shall have access to the Site to review work in progress and shall comply with the Site safety plan. When possible, representatives of the State shall coordinate visits to the Site in advance with the RPM. Likewise, when possible, the RPM will coordinate visits to the Site in advance with representatives of the State.

A. EPA LIABILITY WAIVER

EPA shall not be responsible for any harm to any State representative or other person arising out of, or resulting from, any act or omission by the State in the course of an on-site visit.

B. STATE LIABILITY WAIVER

The State shall not be responsible for any harm to any EPA representative or other person arising out of or resulting from any act or omission by EPA in the course of an on-site visit.

10. SITE-SPECIFIC PLANS

A site-specific Statement of Work and Operation and Maintenance Plan, indicating the tasks to be performed for this response action, is attached in Appendix B and Appendix C.

11. PROJECT SCHEDULE AND CHANGES

A general description of the project schedule for O&M activities is included in the O&M Plan (Attachment C). This project schedule may be adjusted by the joint authority of the RPM and the SPM, without a formal amendment, unless there is an extended delay to the schedule. Changes that significantly alter the scope of work, thereby affecting the State's ability to meet the conditions set out in this agreement, shall necessitate an amendment to this agreement.

12. EPA REVIEW

The EPA shall have ten working days, with a five working day extension upon request, for review and comment on matters relating to the implementation of the O&M measures pursuant to this MOA.

13. TECHNICAL AND PROGRESS REPORTS

The State shall supply the RPM with copies of all progress reports and technical reports generated through implementation of the O&M Plan. These progress reports shall include an explanation of work accomplished during the reporting period, delays and problems encountered, along with a description of anticipated corrective measures and resolutions.

14. RECORDS ACCESS AND INFORMATION ABOUT THE SITE

A. At EPA's request and to the extent allowed by State law, the State shall make available to EPA any information in its possession concerning the Site, with the exception of deliberative or policy documents which the State would not otherwise be required to disclose. At the State's request and to the extent allowed by Federal law, EPA shall make available to the State any information in its possession concerning the Site, with the exception of deliberative or policy documents which EPA would not otherwise be required to disclose.

B. EPA shall not disclose information submitted by the State under a claim of confidentiality unless EPA is required to do so by Federal law and has given the State advance notice of its intent to release that information. Absent notice of such claim, EPA may make said information available to the public without further notice, subject only to the following limitation. Unless otherwise required by applicable law, any information which may potentially affect present or planned enforcement actions or

investigations shall not be released to the public unless approved by both EPA's Office of Regional Counsel and the State.

15. FUNDING

The Pownal Site Special Account shall be the primary source of funds for fulfilling the State's obligation under this Contract. If these funds are not sufficient, DEC agrees to seek sufficient funding through the budgetary process. Any requirement for the payment or obligation of funds for Operation and Maintenance expenses by the State established by the terms of this agreement, shall be subject to the availability of funds. No provision herein shall be interpreted to require obligation or payment of funds in violation of the applicable State law.

16. FINANCIAL OBLIGATIONS OF THE PARTIES

A. EPA will contribute one-hundred (100) percent of the financial obligation to carry out the removal response activities detailed in the SOW. The State shall contribute one-hundred (100) percent of the financial obligation for the costs of the Operation and Maintenance activities detailed in the O&M Plan.

B. EPA and the State, respectively, shall, in addition to their contributions to the work and acquisitions described in the SOW and the O&M Plan, be responsible, at their own cost and expense, for furnishing the necessary personnel, materials, services, and facilities, and for otherwise doing all things necessary for, or incidental to, the performance of their other obligations under this agreement, except as expressly provided to the contrary. None of the expenses incurred by the State in performing any of these other obligations shall be paid or reimbursed from the Hazardous Substance Superfund established by 26 U.S.C. §9507; nor shall they be counted toward any cost-sharing requirements under this agreement or any future contracts or cooperative agreements related to the Site, except as expressly provided to the contrary.

17. OFF-SITE STORAGE, TREATMENT, OR DISPOSAL

A. The EPA and the State anticipate that hazardous substances may have to be stored on-site prior to ultimate treatment, storage, or disposal of these hazardous substances. The costs of such storage (i.e., security, monitoring and analysis, etc.) shall be funded by the State.

B. All non-hazardous substances generated in the performance of the O&M Plan shall be handled and, if necessary disposed of in accordance with applicable State requirements. The costs of such handling and, if necessary, disposal shall be funded by the State.

18. NOTIFICATION OF TRANSFERS OF CERCLA WASTE

EPA or the State must provide written notification prior to the off-site shipment of waste from the Site to an out-of-state waste management facility, to:

- A. The appropriate State environmental official for the State in which the waste management facility is located; and/or
- B. The appropriate Indian Tribal official who has jurisdictional authority in the area where the waste management facility is located.

19. STATE ASSURANCE: OPERATION AND MAINTENANCE

- A. The State will assure all future operation and maintenance of the NTCRA response actions at the Site. By entering into this agreement and subject to the exceptions and conditions set forth herein, the State assures that all future operation and maintenance of the Project in accordance with the Site Operation and Maintenance Plan attached as Appendix C shall be implemented and that all costs of operation and maintenance shall be paid for by the State.
- B. The State identifies the DEC as the organizational units that shall be responsible for the State's operation and Maintenance obligations for the NTCRA.
- C. The State agrees to be bound by the Site O&M Plan which is attached as Appendix C.

20. RESPONSIBLE PARTY ACTIVITIES

If at any time during the period of this agreement a responsible party comes forward to perform any work covered by this Contract, and is considered qualified by both the EPA and DEC to conduct O&M activities, this agreement will be amended or terminated.

21. ISSUE RESOLUTION

- A. In the event technical difficulties arise at the Site, or questions are raised about any terms in this agreement, the RPM and the SPM will seek resolution in a higher chain of command. Note that matters unrelated to this MOA, such as those between the State and other Federal agencies, are not subject to the terms of this agreement, since the MOA is a bilateral agreement.
- B. Any disagreements arising under this agreement shall be resolved to the extent possible by the RPM and the SPM.
- C. At any time during the issue resolution period either EPA or the State may propose the use of a mediator to assist in resolving a dispute. In addition, upon the request of either EPA or the State, a meeting shall take place with the assistance of a mediator for the purpose of resolving the dispute and/or determining whether to undertake further

mediated discussions. This initial meeting shall take place within ten business days of either party's request, unless EPA and the State agree to extend that period.

D. After the initial mediated meeting, the decision to continue the mediation shall be in the sole discretion of each party.

E. EPA and the State agree that they will share equitably the costs of mediation, subject to the availability of funds for this purpose. If either EPA or the State determine that no mediation funding is available, each party shall have the option to cover all of the mediation costs or to request the services of a trained mediator from EPA's in-house program or any other dispute resolution professional whose services may be available to the parties at no cost.

F. If any such disagreement cannot be resolved by the RPM and the SPM or through mediation, it shall be referred, as necessary, in the EPA, to the Director of the Office of Remediation and Restoration [or designee], and in the DEC, to the Director of the Waste Management Division, and finally to the Commissioner of the Department of Environmental Conservation, for a resolution. If the disagreement remains unresolved, the EPA, Director of the Office of Site Remediation and Restoration shall act as the final arbiter of the dispute. Both parties, EPA and the State, agree that the final decisions achieved resulting from this process shall be binding.

22. AMENDABILITY

This agreement may be amended for reasons including, but not limited to, the revision of terms to undertake modifications to the removal activities. Such amendments must include a SOW for the amendment, as described in the Site-specific SOW section, above. Should CERCLA be revised or amended to supersede or modify the NCP or should EPA amend or modify the NCP in a manner which affects the duties of the State under this MOA, this agreement shall be modified consistent with the result of the amendment. Any change(s) in this MOA must be agreed to, in writing, by the signatories, except as provided in this agreement, and must be reflected in all response agreements affected by the change(s).

23. TERMINATION OF THIS MOA

A. Termination may occur for cause, conclusion, or failure to comply. The parties may enter into a written termination agreement, which will establish the effective date for the termination of this agreement.

B. If, at any time during the period of this agreement, performance of either all or part of the work described in the SOW is voluntarily undertaken, or undertaken for any other reason by persons or entities not party to this agreement, then this agreement will be modified or terminated as appropriate to allow these actions. Upon modification or termination, the parties to this agreement shall be relieved from further duties to perform those actions undertaken by persons or entities not party to this agreement.

24. APPENDICES AND AMENDMENTS

Appendix A Site Description

Appendix B Statement of Work

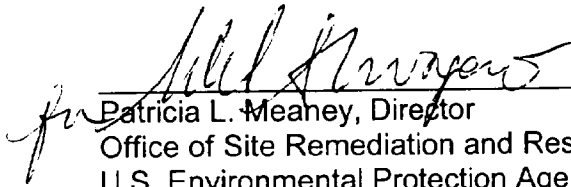
Appendix C Operation and Maintenance Plan

Appendix D Action Memorandum

In witness whereof, the parties hereto have executed this MOA in three (3) copies, each of which shall be deemed an original.

This MOA becomes effective upon approval by both parties:


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



Patricia L. Meaney, Director
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency

8-6-02
Date

STATE OF VERMONT



Christopher Recchia, Commissioner
Department of Environmental Conservation
State of Vermont

7/3/02
Date

Appendix A

Site Description

Pownal Tannery Superfund Site, Pownal, Vermont
History and Description
August 2002

The Pownal Tannery facility property is located between Route 346 and the Hoosic River in the Village of North Pownal, Vermont. The property is about 987 acres and is located in a rural area. The property was first developed circa 1880, when the three-story building on site was constructed as a woolen mill. The 169,915-square foot building was converted to a tannery operation circa 1940. A lagoon system, used to treat effluent tannery process water, is located northwest of the former tannery building. A sludge landfill, used for the disposal of accumulated lagoon sludge, is located southeast of the former tannery building. The Pownal Tanning Company dam, formerly used to generate hydroelectric power for the tannery, is located on the Hoosic River at the southern end of the former tannery building. The Pownal Tanning Company ceased operations on the property in 1988 and filed for bankruptcy.

A variety of materials, many of which are hazardous, were used and stored in the former tannery building. In April 1993, 12,830 pounds of materials from throughout the former tannery building were collected, sorted for compatibility, and combined and consolidated for removal during an EPA Removal Program emergency removal action. A brief summary of these substances includes chrome residue, chrome powder, alum, solvents, asbestos, and acids.

From circa 1940 until 1963, effluent tanning process water was released directly to the Hoosic River. In 1963, two lagoons were constructed by Pownal Tanning Company at the northwest end of the property, adjacent to the north bank of the Hoosic River. The lagoons allowed the settling of solids from the wastewater sludges before their ultimate discharge to the Hoosic River. In 1971, the two lagoons were subdivided and expanded to create five lagoons. In 1978, a concrete clarifier was constructed in the vicinity of Lagoons #3A and #3B to provide additional wastewater treatment. Treatment of effluent tanning process water consisted of screening the wastewater, settling of suspended solids, chemical coagulation and settling of additional suspended solids in the clarifier, biological oxidation of dissolved materials, algae stabilization and aerated polishing.

Before 1980, wastewater entered the lagoon system at Lagoon #1 and passed sequentially through the lagoons to Lagoon #5, where treated tannery process water was discharged to the Hoosic River. By the 1980s, Lagoons #1, #2, #3A, #3B, and #4A, which had become filled with accumulated sludge, were bypassed so that wastewater from the clarifier discharged directly to Lagoon #4 and then Lagoon #5. The lagoons continued to receive treated effluent wastewater until the company ceased production circa 1988.

Until 1988, leachate was routinely collected from the sludge landfill by tank truck and disposed in Lagoon #5, where it was allowed to discharge to the Hoosic River without further treatment. Discharge to the river from Lagoon #5 has not been noted since tannery production ceased in 1988; however, the remnants of the outfall channel to the Hoosic River remain an unobstructed flow pathway from the lagoon system to the river.

The sludge landfill was established on a 3.1 acre parcel southeast of the Pownal Tanning Company

in 1982. The sludge landfill is located adjacent to wetlands along the southern bank of the Hoosic River, upstream of the Pownal Tanning Company. Originally, the 54,000 square foot sludge landfill was approximately 400 feet long and varied from 80 to 200 feet wide. It consisted of three separate cells, constructed from 1982 to 1990, which are underlain by a Hypalon liner. The three cells received sludge from the clarifier filter press and sludge removed from Lagoons #2 and #4. Cells #1 and #2 were capped with 20-mil PVC and two feet of silty sand in 1983 and 1987. Cell #3 was partially capped circa 1990 with soil.

Hydrogeologic investigations were performed at the property in 1988 by SP, Inc. and in 1988 by Saunders Associates. Between 1981 and 1987, twenty-one overburden groundwater monitoring wells were installed in the vicinity of the lagoons and the sludge landfill. A Preliminary Assessment of the property was performed by an EPA contractor on March 31, 1987. A Screening Site Inspection was performed by the contractor on December 21, 1989. A Site Inspection Prioritization was completed in December 1993. A Remedial Investigation Summary Report was completed in March 1997.

Investigations at the property included the collection of surface water, lagoon water, sludge landfill leachate, sludge landfill and lagoon sludge, and soil samples from the property. The results of this work indicated that hazardous substances were released to surface water from the on-site lagoons. Substances detected in sources on the property include solvents, preservative chemicals associated with the tanning industry, polychlorinated biphenyls (PCBs), inorganic elements, and dioxins.

The population residing within four radial miles of the potential source areas on the Pownal Tannery property obtain drinking water primarily from private drinking water wells. No drinking water intakes have been identified along the 15-mile surface water pathway. Also along the surface water pathway, the Hoosic River is a trout fishery, and there are numerous areas of wetlands along its banks downstream of the Pownal Tannery property.

The site was listed on the NPL in January 1999. EPA signed an Action Memorandum for a non-time critical removal action (NTCRA) in March 2001. The NTCRA included decontamination of the tannery buildings, building demolition and off-site disposal of debris, excavation of contaminated soil and sludge under the former buildings and on-site disposal in the existing landfill, and a RCRA C cap at the landfill. NTCRA maintenance of the lagoon site is being performed by the Vermont Department of Environmental Conservation (VTDEC), pursuant to this Memorandum of Understanding, and includes environmental monitoring which is being performed by the to ensure ongoing protection of human health and the environment. To assess the migration of low levels of contaminants in the groundwater, existing groundwater monitoring wells are being periodically sampled. Samples from adjacent private water supplies will continue to be tested to ensure that site contaminants are not impacting local residents. Sediment samples will be collected from the Hoosic River and tested yearly to assess future potential impacts from the site to the ecology. In addition, five-year site reviews will be performed to ensure that the remedial alternative remains protective of human health and the environment.. The primary contaminants of concern include dioxin, semi-volatile organic compounds (semi VOCs) and metals.

The lagoon area was addressed during an RI/FS which began in the Spring of 1999, concurrent with the NTCRA , and concluded in July 2002. The RI/FS concluded that there is an unacceptable exposure risk to certain sludges in the lagoons and that an action is required. The Proposed Plan for the lagoon area was submitted for public comment on July 18, 2002. The ROD is anticipated in the Fall of 2002. The Proposed Plan calls for excavation of saturated and unsaturated contaminated soil and sludge in lagoon's 1 and 5 and consolidation of these materials over lagoon 3 and in the southeast corner of lagoon 4. To reduce the potential human-health risks associated with direct contact with the contaminated material, the proposed remedy will include covering the soil and sludge with a low permeable landfill cap. The consolidated wastes would be graded and storm water controls would be installed to minimize groundwater infiltration into the wastes. This cap would be designed to resist future flooding events and to protect future users of this property. Maintenance of the landfill cap would be performed by the VTDEC and is required for at least 30 years.

There is no viable PRP at the site and a close-out memorandum (e.g., decision not to pursue cost recovery at the site) was signed in 1997. The town of Pownal is in the process of taking title to the former tannery building area and the lagoon area and plans on utilizing the lagoon area to build a future POTW. EPA awarded the town of Pownal a grant to complete a Site Reuse Assessment in 2000. The results of this reuse assessment lead to the determination to locate the POTW in the lagoons, and to develop the former tannery building area as a recreational site.

Appendix B

Statement of Work

Appendix C

Operation and Maintenance Plan

Appendix D
Action Memorandum

Due to excessive lengthiness, Appendices B, C and D of the Memorandum of Agreement, NTCRA, August 2002 are not included here.

To view these appendices, please contact the US EPA Region 1 Superfund Records and Information Center, Boston, MA, (617) 918-1440.

**POWNAL TANNERY SUPERFUND SITE
RECORD OF DECISION
SEPTEMBER 2002**

**APPENDIX E
WETLAND DETERMINATIONS**



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

JUL 25 2001

JUN 21 2001

Regulatory Division
CENAE-CO-R-61
200101152

Mr. Dale S. Weiss, P.G.
Senior Program Manager
TRC
Boott Mills South
Foot of John Street
Lowell, Massachusetts 01852

Dear Mr. Weiss:

We have determined that the lagoons at the Pownal Tannery Superfund Site in Pownal, Vermont do not meet the definition of a water of the United States and are therefore not within federal jurisdiction.

This determination is based on the information in your April 19, 2001 letter (with attachments), a June 7, 2001 site visit, and on the attached undated plans, in two sheets, entitled "VICINITY MAP POWNAL TANNERY" and "STUDY AREA POWNAL TANNERY POWNAL, VERMONT".

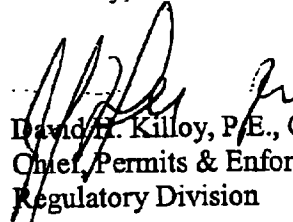
Our regulatory jurisdiction under Section 404 of the Clean Water Act encompasses the discharge of dredged or fill material into waters of the United States. Waters of the United States are navigable waters, tributaries to navigable waters, wetlands adjacent to those waters and/or isolated wetlands that have a demonstrated interstate commerce connection. We also regulate certain discharges associated with the excavation and grading within those waters. The lagoons on the subject property are not jurisdictional waters of the United States.

Our Corps permit process does not supersede any other agency's jurisdiction. Therefore, if other Federal, State, and/or local agencies have jurisdiction over the subject lagoons, you must receive all other applicable permits for any future proposal which would impact these areas.

-2-

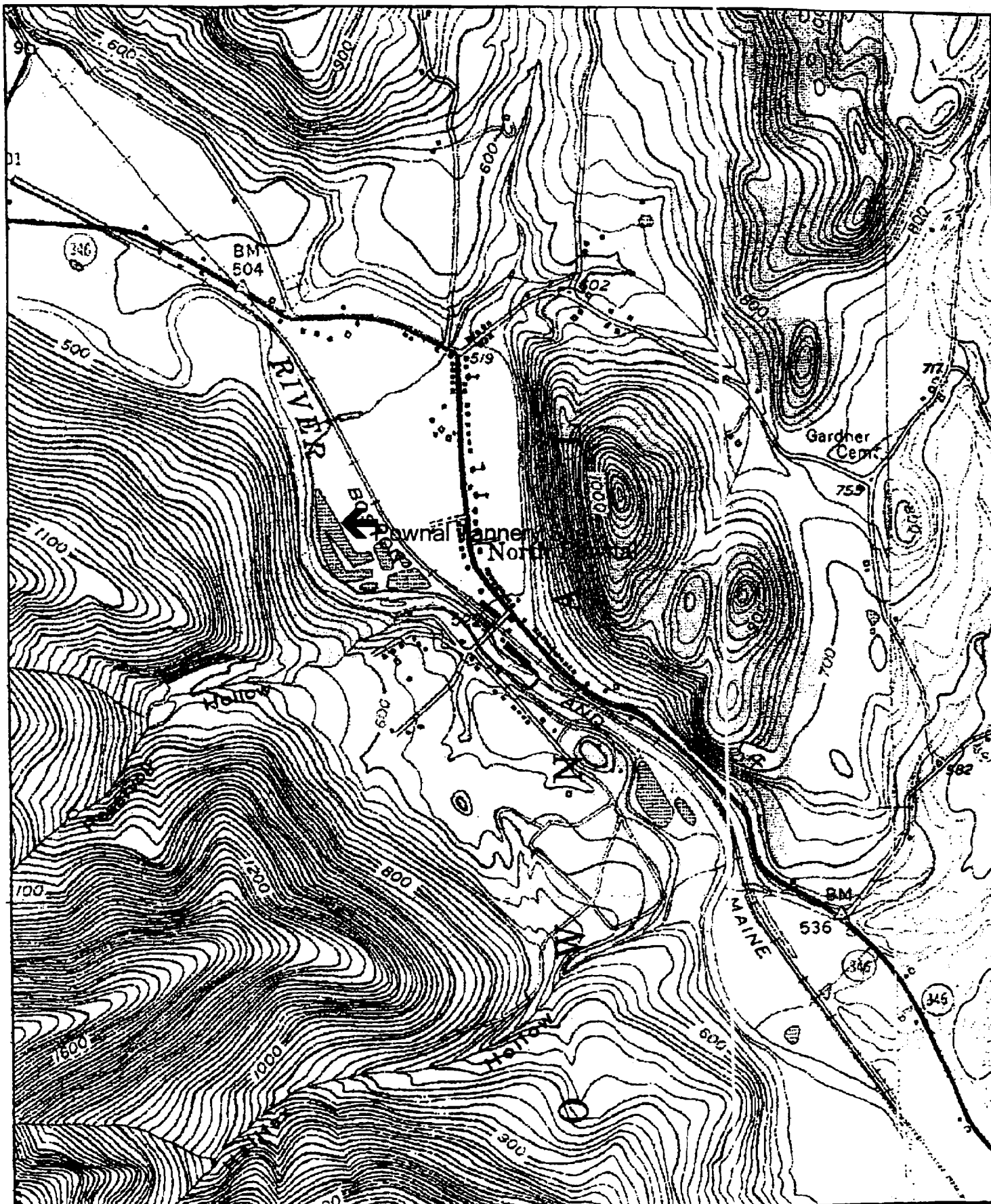
If you have any questions regarding this letter, please contact Marty Abair at our Vermont Project Office at 802 872-2893.

Sincerely,



David H. Killoy, P.E., C.P.G.
Chief, Permits & Enforcement Branch
Regulatory Division

Attachments



Name: NORTH POWNAL
 Date: ~~REDACTED~~
 Scale: 1 inch equals 1333 feet

Location: 18 641859 E 4739538 N

VICINITY MAP
 POWNAL TANNERY

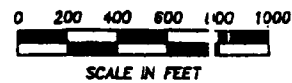
LAGOON AREA

WOODS ROAD
DISPOSAL AREA

W/REHOUSE AREA

FORMER TANNERY
BUILDING AREA

LANDFILL AREA



DRAFT

LEGEND

— TANNERY PROPERTY BOUNDARY

TRC

South Mill South
East of John Street
Lewiston, ME 04902
978-870-5400

TRC PROJ. NO.: 02136-022 0-01183

EPA CONTRACT NO.: 68-W6-0042

RAC SUBCONTRACTOR NO.: 07081

FIGURE 1.2-2
STUDY
AREA

POWNA TANNERY
POWNA, VERMONT

M&E Metcalf & Eddy

Agency of Natural Resources
Department of Environmental Conservation

Water Quality Division
Building 10 North, 2nd Floor
802-241-3770
Fax #: 802-241-3287

MEMORANDUM

To: Brian Woods, DEC Site Manager

From: Alan Quackenbush, District Wetland Ecologist

Date: August 15, 2001

Subject: Wetlands at the Pownal Tannery site

The lagoons at the tannery site were mapped as wetlands on the National Wetland Inventory map for the area; three as ponds (open water wetlands) and one as a marsh. The topographic map indicates that they are man-made basins. On July 18, 2001 I visited the site for the purpose of a wetland assessment. From the perspective of the Vermont Wetlands program, we would **not** consider these man-made lagoons to be significant wetlands, and would not require any mitigation for impacts to these wetlands. Our standard of review is to determine the significant functions and values of the wetlands in question and to ensure no net loss of those functions. As the wetlands in question have no significant function, there would be no net loss.

For restoration recommendations, we would be in favor of removal of all, or a portion, of the berm next to area 4 to allow the river to flood into this space, providing for the hydrologic regime of a floodplain wetland. Of all of the lagoon areas, this one seemed to have the most potential for wetland restoration or enhancement. If this area is restored, we would also recommend a 50-ft naturally vegetated buffer around the wetland, which in turn would provide a suitable buffer for the river along this reach. A restored wetland would provide: storage for flood water and stormwater, water quality protection, fisheries habitat, wildlife habitat, and some erosion control.

**POWNAL TANNERY SUPERFUND SITE
RECORD OF DECISION
SEPTEMBER 2002**

**APPENDIX F
SUPPLEMENTAL HUMAN HEALTH RISK ASSESSMENT
SEPTEMBER 23, 2002**



Memorandum

DATE: September 23, 2002
TO: D. Dwight
FROM: D. Silverman/S. Czarniecki
PROJECT: Pownal Tannery
SUBJECT: Supplemental Human Health Risk Evaluation of Hoosic River Sediments

In response to concerns raised by the town as to the hazard associated with use of the Lagoon area of the Hoosic River for recreational use, a supplemental risk assessment has been conducted. The baseline risk assessment indicated potential carcinogenic risk to adult and child recreational users of the river, based on a combination of sediment samples from all river locations in the vicinity of the site. The primary risk contributors were polychlorinated biphenyl (PCB) compounds. Since a dam is present in the river, providing a significant exposure barrier to upstream locations and contaminants, two separate exposure areas are likely present within the river (i.e., a downstream area and an upstream area). The downstream locations contain PCB levels only slightly in excess of the conservative preliminary remediation goal (PRG) developed as part of the feasibility study. Upstream areas contain significantly higher contaminant concentrations.

The supplemental risk assessment focused on potential future human exposures to sediments in the Hoosic River downstream of the dam, adjacent to the portion of the site planned for recreational development. The upstream sediment samples have not been included in this evaluation since it is recognized that, due to the contaminant levels present, human exposures at these locations would present a risk above regulatory guidelines.

The supplemental risk assessment was performed using the same methods and assumptions as the baseline risk assessment. These methods and assumptions are briefly summarized in the following text and tables. Additional details can be found in the RI report for the site.

The downstream sediment samples evaluated include SD-030 through SD-041. These samples were all located below less than 1 foot of surface water, a depth considered accessible for human receptors. Summary statistics for these 12 samples are presented on Table 1. This table also presents the screening process used to select contaminants of potential concern (COPCs). In order to select COPCs, a comparison between the maximum detected site concentrations and a conservative screening toxicity value is made. The Region 9 residential soil PRGs have been used as screening toxicity values. Any contaminant whose maximum detected concentration exceeds the screening value is selected as a COPC and is further evaluated in the risk assessment. Sediment contaminants selected as COPCs for this evaluation include: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, Aroclor 1260, PCBs (as a PCB toxicity equivalent concentration [TEQ]), arsenic, chromium, and manganese.

In order to evaluate the magnitude of human exposures, an exposure point concentration (EPC) must be estimated for each COPC. Since the 95% Upper Confidence Limit (UCL) on the arithmetic mean is the most reliable estimate of exposure, 95% UCLs have been calculated for each of the COPCs. However, for data sets with high variability, the 95% UCL may exceed the maximum detected concentration. In these cases, the maximum detected concentration is used to evaluate the reasonable maximum exposure

(KME) scenario and the arithmetic mean concentration is used for the central tendency (CT) exposure scenario. Table 2 summarizes the statistic (95% UCL, mean, or maximum) selected as the EPC for each COPC.

To estimate the carcinogenic and noncarcinogenic risk associated with potential future sediment exposures, both exposure and toxicity information is needed. To quantify the extent, frequency, and duration of potential human exposures, exposure assumptions are selected for the receptors of interest. Since the concern is future recreational exposures, only child and adult recreational receptors have been selected for evaluation. A complete discussion of additional exposure pathways evaluated in the baseline risk assessment can be found in the RI report along with the rationale for the recreational exposure assumptions selected. However, Tables 3 and 4 have been included to provide a summary of the exposure assumptions for the adult and child recreational receptors, respectively. The toxicity values used in this evaluation are the same as those used in the baseline risk assessment. Further information is provided in the RI report. However, Tables 5 through 8 list the oral reference doses used to evaluate noncarcinogenic risk and Tables 9 through 12 list the oral slope factors used to evaluate carcinogenic risk.

Risk estimation was performed by combining the toxicity and exposure information as described in the baseline risk assessment. Tables 5 through 8 summarize the noncarcinogenic hazards associated with potential sediment exposures for the adult and child RME and CT receptors. Tables 9 through 12 summarize the carcinogenic risks for these same receptors. Individual receptor risks are within the EPA risk management cancer risk range of 10^{-6} to 10^{-4} , and below the agencies noncarcinogenic target risk of 1.

Tables 13 and 14 provide the cumulative receptor risks for the adult and child combined. Risks associated with surface water exposures have also been included since recreational use would likely result in exposures to both these media. Cumulative risk estimates provide the basis for risk determination at a site. Cumulative receptor carcinogenic risks are also within the EPA risk management cancer risk range of 10^{-6} to 10^{-4} , and noncarcinogenic risks are below the agencies target risk of 1. This supplemental evaluation demonstrates that potential human recreational exposures to sediment adjacent to the Lagoon area, downstream of the dam, do not appear to be associated with risk above regulatory guidelines. Exposures to sediments upstream of this area should be prevented since sediment-associated risks in the upstream reach exceed regulatory guidelines.